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THE
REGISTER AND LIBRARY
OF
MEDICAL
AND
CHIRURGICAL SCIENCE;

EDITED BY
GRANVILLE SHARP PATTISON, M. D.

PROF. OF ANAT. IN JEFF. MED. COL., PHILA.,

ASSISTED BY
JAMES HAGAN, M.D., WASHINGTON.



VOL. I.

Washington:
PRINTED AND PUBLISHED BY DUFF GREEN.

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1835.

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PREFACE.

We are gratified in stating that the patronage obtained for the 1st. vol. of the *Register and Library* equals our most sanguine expectations, and insures the continuance of our labors. The numerous testimonies we have received of the estimation in which the Work is held by the Medical Profession; the continued increase of our Subscription List—though the publication was attended with more than the usual untoward circumstances of a new Journal, satisfy us that THE REGISTER and LIBRARY will attain a most extensive circulation. In order to present to the public a brief and well-defined outline of this work, its character, and the advantages which it offers to members of the Medical Profession, we will here state the works that have appeared in its pages during the first year of its existence. It is divided into two parts: one contains the most important Improvements in Medical Science as they appear in the American and European Journals:—Editorial matter, communications, and articles selected from the *London Lancet*, *Medical and Surgical Journal*, *Medical Gazette*, *Edinburgh Medical and Surgical Journal*, *Johnston's Medico-Chirurgical Review*, and other able publications on the continent of Europe and America, furnish materials for this department of the REGISTER and LIBRARY. The other part is devoted entirely to a reprint of the most valuable standard books, on the Practice of Medicine, Surgery, Midwifery, and the collateral sciences, as they issue from the European Press. Thus, in two months after a work has appeared in Europe, our readers in the Valley of the Mississippi are put in possession of the experience and intellectual labor of the most eminent medical men in the world. The reprints are regularly paged, and furnished with their Index, Table of Contents, &c., so that they can easily be bound up in separate volumes at the end of the year. The reprints of books the first year, embrace—*Sir Charles Bell on the Nerves*, with Plates; *Macintosh's Pathology and Practice of Physic*; *O'Bierne on Defecation*; *Lawrence on Diseases of the Eye*; *Mayo on Diseases and Injuries of the Rectum*; *Blake on Delirium Tremens*; *Philip on Minute Doses of Mercury*; *Brodie on Diseases and Injuries of the Joints*; *Blundell's Principles and Practice of Obstetricy*; a *Treatise on Veratria*; and a portion of the *New Elements of Operative Surgery*, by Velpeau, with Plates; translated from the French for this work. This portion of THE REGISTER and LIBRARY occupies about 3,000 large royal octavo pages, and furnishes our Subscribers with Books which would cost about fifty or sixty dollars.

This outline will enable the reader to form an idea of the character and value of the Work. It will be seen, that Physicians in a few years can obtain, at a trifling expense, a Library of the most approved Works on every branch of Medical Science.

Copeland's Dictionary of Medical Sciences, and *Professor Elliston's System of Physiology* (just issued from the press), will shortly appear in the Register and Library. The "Lecon's Orales," of the late eminent French Surgeon Dupuytren, on Surgical Pathology, is in process of translation for this work.

REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE;

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 22, 1833.

No. 1.

PROSPECTUS.

In presenting the FIRST NUMBER of the "REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE" to the members of the profession, it will naturally be expected that we should preface it with a brief exposition of the objects proposed to be accomplished by its publication, and an explanation of the plan on which it will be conducted. In doing so, we feel that it is unnecessary for us to detail, at length, all the benefits which such a work will secure to the physicians and surgeons of the United States. The mere announcement of the plan, must, we conceive, carry conviction to every intelligent mind, that, if it is only ably conducted, it will furnish a very important addition to the present facilities for diffusing medical information in the United States.

The nineteenth century forms a most remarkable era in the history of the world. From its commencement, the sciences have received, from the more general diffusion of knowledge, an impulse which was not only previously unknown, but which it would have been even considered as visionary to anticipate. The arcana of nature have been exposed, and the most mysterious of her operations elucidated and explained. In few of the sciences has the progress of discovery and improvement been more remarkable than in the science of medicine. Her march has been a most triumphant one; and the conquests which have been gained by her sons have not only been of the most resplendent, but of the most valuable character. Great, however, as has been the amount of discovery and improvement in medical science within the last thirty years, so far from its having had the effect

of exhausting the supply, they appear to increase it in a geometrical ratio. Scarcely a month passes which is not rendered memorable by the promulgation of new and interesting facts in illustration of the principles of the healing art. The press of Great Britain, France, Germany, Italy, and the United States of America, are, literally, pouring out in a stream, of the richest profusion, valuable original works on the different topics connected with our profession; and the innumerable journals, which they issue, are replete with the most valuable facts and discoveries. It is of the highest importance to the cause of humanity, and the advancement of medical science in this country, that the results at least of this should be communicated immediately on their publication.

The members of the profession of the United States have, heretofore, labored under disadvantages which have been comparatively little felt by their brethren in Europe. In the latter countries, from the condensation of population, and the multiplication of medical libraries, the facilities for obtaining access to the current medical literature of the day, can be gained by almost every physician and surgeon who may desire it. But in this country, the profession is scattered over a vast extent of territory, and the great mass of the profession are debarred under present circumstances, from becoming acquainted with what is occurring in Europe at home, in medical science.

Fortunately the wisdom of the Government has anticipated this difficulty in the communication of information, and by their post-office arrangements have provided a remedy for

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the security of a republican form of government must ever, if it be the wish of its legislators that it should continue, be based on the dissemination of knowledge, and in the instruction of its members; and the facilities afforded to the circulation of periodicals, by post, has been attended with the most beneficial results. Surely, if the extension of general and political information be desirable, the dissemination of medical truth must, for the best and dearest interests of the community, be even more so. We are aware that this channel has already been employed for the circulation of medical periodicals; but, highly as we estimate the journals which are already in course of publication, still, we are of opinion that a *desideratum* remains; and the object of the publication of the "REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE" is to supply it.

The medical periodicals at present published in the United States have their pages, in a great measure, confined to the publication of original papers, and to reviews. We again admit that such works are of great value; yet we would insist that they are not sufficient. Every person at all conversant with critical literature, will admit that reviews are too often written more with the view of promoting party interests, than for the circulation of truth. In support of this assertion, we shall only instance the Edinburgh and Quarterly Reviews of Great Britain. By a reference to their pages, it will be found that if a book is praised in the one journal, it is sure to be abused in the other. If the work is only written by a tory, no matter how contemptible the production may be, it is sure to receive the laudation and commendation of the Quarterly. On the contrary, should it come from the pen of a whig, let it be full of excellence, it will most certainly be contemned, and the opinions and statements it contains misrepresented, in the same ultra journal. Unfortunately, the bitterness of party feelings is not confined to politicians. It exists, to a lamentable extent, amongst the members of our own profession; and the judgment to be formed of medical works from reviews, is, in most cases, liable to be depended on. Were it, however, otherwise, and had that happy millenium arrived when the members of our profession would allow their minds to examine without prejudice the productions of their brethren, still, the physician who is really desirous to keep pace with the improvements of his profession, would

not rest satisfied with reading, only the reviews however just and excellent they might be, or the more celebrated works which are published. He would be desirous to examine the books themselves, and form his own judgment of their merits. A review is, at best, but an ephemeral production. It is perused, and then put aside. It cannot be appealed to as a source of reference; for it is more than probable that the very point to which we may wish to refer has not been noticed by the reviewer.

The libraries which are possessed by the large proportion of the members of the profession in the United States, are, at present, most defective; and are, certainly, altogether inadequate to furnish the mind of the intelligent physician with those materials for thinking, which it is of so much consequence to his own improvement, and to the advancement of medical science, that he should possess.

There are three causes which may be assigned as explanatory of this deficiency in the libraries of our physicians and surgeons. 1st. The great expense of medical books. 2dly. The difficulty of procuring them. 3dly. The indifference which some of the members of the profession feel on the subject of medical and chirurgical improvement.

Although we must admit that the last cause has its operation, still, we are persuaded that it is to the influence of the two first that the deficiency is chiefly attributable. We estimate much too highly the characters of the members of our profession, to suffer ourselves for a moment to believe that there are any number of them who are indifferent to their own improvement, and to the advancement of their profession.

It is the purpose of the publication of the "REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE," to endeavor to obviate the difficulties which at present exist in the United States with medical men in obtaining medical libraries. For the annual payment of ten dollars, every member of the profession who may become a subscriber to it, will be put in possession of reprints of the best medical works which are published in Great Britain, and of translations of some of the most interesting treatises on medical science which appear on the continent of Europe. Not only so: as the "REGISTER," &c. is intended to be a NEWSPAPER for the communication of medical news; a certain number of pages in each number will be occupied

with a periscope, or circumspective review,* which will contain a collection of facts and observations selected from the medical journals of Great Britain, France, Italy and Germany, and likewise domestic medical intelligence. Every physician and surgeon, therefore, who receives our journal, will not only have his library in a few years enriched with the most valuable works which are published, but he will be presented weekly with an abridged statement of the facts of interest which are taking place in his profession both at home and abroad.

There is no want of professional zeal and enthusiasm amongst the members of the profession in the United States. In the improvements which have taken place of late years in medical science, they have furnished their full quota; and it is hoped that the "REGISTER," &c. &c., by furnishing the great mass of the intelligent physicians and surgeons in this country with more copious details of what is going forward in their profession, may have an influence in exciting and stimulating them to increased exertion and study. By elaborating the materials of thought which they receive, they will elicit from them, by the force of their own genius, discoveries and improvements in medical science, which will exalt still higher the reputation of American physicians.

PLAN OF THE REGISTER, &c. &c.

The "REGISTER," &c. will be printed every Wednesday, on a single sheet measuring 48 inches by 38, and forming, when folded, 64 large octavo pages. Each number will contain an editorial article, a periscopic review of what is taking place in medical science at home and abroad, a journal of medical news, a bibliographical record, and reprints and translations from the standard works on medicine and surgery, which appear in Europe. As a principal object aimed at in the publication of the "REGISTER AND LIBRARY" is to furnish the members of the profession in the United States with well select-

ed libraries for reference, the department appropriated to the reprints and translations will occupy a large proportion of its pages. It is impossible to fix the precise number of pages which will be devoted to each department. The review and news one must necessarily vary in length, in different numbers, just as the editor happens to be furnished with materials of interest for communication to the profession. It may, however, be stated, that in general it will not exceed from eight to twelve pages: the remainder of the Register will be occupied with reprints.

The editorial articles will discuss questions of professional interest, and will be written with the most perfect temper, liberality, and independence. Deeply interested as we feel in the promotion of the interests and honor of our profession, we shall never suffer our pages to be disgraced by personalities. Standing forward as public journalists, we are aware that our motives and character may be misrepresented by the malignant and envious; but we have lived long enough to learn, that to notice such attacks is only to confer consequence on insignificance.

The "REGISTER," &c. has been instituted for the dissemination of truth and science, and its pages will never be prostituted by circulation to party bickerings and personal abuse. In the character of the journalist we shall lay aside individual interests. Friendship and enmity will be equally disregarded. We cannot furnish better evidence of this than that supplied in our first number; in which we have selected for republication and commendation the admirable work of Sir Charles Bell, a gentleman for whom *we* cannot be suspected of entertaining any personal predilection. As the editor of the Register, however, we feel only for him the most profound respect and admiration; for he is unquestionably the first of physiologists and the most distinguished of modern philosophers; and when we come to discuss the merits of his claims, it will afford us the sincerest pleasure to render justice to them.

In making up our circumspective review, our great object will be to select those facts which we consider of most interest to the profession and detail them with clearness and brevity. The lectures of several of the most distinguished professors in Europe, are now in course of publication, under their own correction. As these embody a vast fund of valuable practical information, we propose to furnish to the readers of

* It will be observed, that in our divisions, we have borrowed a number of the terms employed by the distinguished editor of the "MEDICO-CHIRURGICAL REVIEW," the very best medical journal which has ever been published, and one not less remarkable for the acumen and research with which its reviews are written, than for their perfect liberality and fairness.

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Register their substance in an abridged form; and shall endeavor, in each number, to give one lecture. The *Leçon Orales* of the Baron Dupuytren, Surgeon-in-chief of the Hôtel Dieu shall commence with in our next number.

As we shall republish the standard works which appear in Europe, our reviews will be generally confined to American publications. They will furnish an analysis of the subject matter treated, and a critical view of the merits of the books reviewed.

Each number of the REGISTER, &c. will contain a bibliographical record of the new medical publications which may appear. In our first number, as we are not yet in the receipt of our books from Europe, this is wanting. It will however be furnished in our next and succeeding numbers.

As the Register is a medical newspaper, it will contain a department devoted to the circulation of medical news. In this we shall give *on dits* of the profession, medical anecdotes, an obituary of medical men, the facts connected with the progress of medical institutions, sketches of medical characters; and, to give these greater interest, we shall, when we have it in our power, furnish portraits, taken from approved likenesses, of the distinguished individuals whose characters we sketch.

In republishing European works in our library department, we shall, whenever they involve disputed questions as to priority of discovery, &c., preface them with an introductory essay, in which we shall endeavor to do justice to all parties. We had prepared an essay as introductory to "SIR CHARLES BELL'S WORK ON THE NERVOUS SYSTEM," in which we have given a history of the claims of M. Magendie, and Mr. Mayo, &c. &c. This we shall publish in our next number.

A first rate engraver has been engaged to reside in the establishment at Washington, for the purpose of executing the engravings which may be contained in the works which we republish. There are nine plates illustrative of Sir Charles Bell's views on the subject of the nerves; but as these are given by the author with explanations, at the end of his volume, we shall, in reprinting it, likewise place them at the end.

Such is a brief account of the objects and plan of the "REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE." It is not in accordance with the feelings of the editor to

press on the attention of his brethren the value of the publication in which he is about to engage. He has endeavored very briefly to explain its objects, and the plan on which it will be conducted; and he is disposed to believe that those members of the profession who are really interested in the promotion of medical science, will be gratified by its publication, and afford it their patronage. To estimate its value and cheapness, it is only necessary to state, that the work of Sir Charles Bell, on the Nervous System, which we commence in our first number, and which costs THIRTEEN DOLLARS AND FIFTY CENTS, will be furnished to our subscribers, together with the Periscope of Medical Information, for SIXTY CENTS; and other works will be furnished on the same terms. This fact requires no comment; and proves, that in so far as economy is concerned, such an opportunity was never before afforded the profession to obtain medical libraries.

In selecting Sir Charles Bell's great work on the Nerves, for republication, we have been induced to do so from the convictions of its superior excellence. It furnishes all the knowledge we possess on the subject of the physiology of the nervous system, and will afford to our readers a valuable volume of reference, when we come, as we propose very soon to do, to republish some of the interesting works which have lately appeared, on the Pathology of that System; a subject which has, until lately, been much neglected by physicians, and one, from the investigation of which the most valuable results have already been obtained.

As the editor has nothing to do with the pecuniary concerns of the journal, he would refer his readers to a notice of terms and mode of subscription furnished by the publisher, and printed on the cover.

PERISCOPE AND REVIEW.

Paralysis and atrophy of the tongue from an hydatid in the anterior condyloid foramen pressing on the lingual nerve.

When the patient now mentioned left the Hôtel Dieu he had a paralysis of the left side of the tongue, which had occasioned the atrophy of this part; but he preserved the sense of taste, which led us to suppose that the lesion influenced the great hypoglossal nerve. In about two years after we heard that he died at the Hôpital Cachin. M. Gendrin, who had the kindness to communicate some details about him, states that he pro-

tained his intellectual faculties to the last moment. The paralysis and atrophy of the left side of the tongue were still more marked than when he left the Hôtel Dieu. The sense of taste had slightly diminished at the side affected. His generative organs were much weakened. Some days before death, symptoms of compression set in, under which he died.

“On careful dissection a great quantity of serosity was found in the ventricles of the brain. But what is still more remarkable, is, that a considerable number of hydatids were discovered at the base of the cerebellum; one of them had introduced itself into the anterior condyloid foramen, and compressed the hypoglossal nerve in the most evident manner. Thus was our diagnosis substantiated. This fact is the more curious as it supports the opinion of the physiologists who believe this nerve to be more specially destined to motion and nutrition. M. Gendrin has pretended that these hydatids were not encysted, but it is probable that the envelopes were torn; and this is still further proved by the fact of the liver containing a considerable number of these acephalo cysts, which were comprised in a single cyst.’

Lecons orales par Dupuytren.

ERGOT OF RYE.

An admirable essay on the use of ergot of rye in menorrhagia and metrorrhagia has just been published in the Bulletin Général de Therapeutique, by M. M. Trousseau and Maisonneuve. We subjoin the conclusions they deduce from their observations, together with a tabular epitome of the cases from which they reason. It is gratifying to observe, that this valuable remedy, which has so long been employed with so much advantage in the United States, should at last receive from the practitioners in Europe the attention it deserves. The following conclusions, drawn from the observations of the gentlemen referred to, have been long ago established by American physicians.

“CONCLUSIONS.—From the preceding facts we deem ourselves entitled to conclude—

- “1. That the ergot of rye exercises on the uterus a powerful but transitory action.
- “2. That this action chiefly concerns the fibres of the organ, and determines their contraction.
- “3. That these contractions, constantly accompanied by pains, put a rapid stop to menorrhagic discharges, on whatever cause they depend.

- “4. That the state of the uterus in no respect influences the production of the pains.
- “5. That the pains are observed even when a part of the neck of the uterus is affected with cancer.
- “6. That the ergot of rye acts on the centre of the nervous system as a narcotic.
- “7. That the resulting phenomena are slow but durable.
- “8. That they are never serious or dangerous, when we confine ourselves to combat the menorrhagia.
- “9. That the dose may, without danger or inconvenience, be carried to several drachms in the course of four or five days.
- “10. That, in the treatment of menorrhagia, divided doses, given at equal intervals, are to be preferred.
- “Lastly. That we need be under no apprehension of commencing with a drachm dose, divided during the first twenty-four hours.

TABLE.

	Age.	Number of children or miscarriages.	Duration of the disease.	Cure in.	Quantity of ergot taken.
1. Menorrhagia	} 18 23 30 39 41 28 23 32	-	13 days	60 hours	216
2. do		-	6 weeks	7 do	108
3. do		-	15 days	44 do	168
4. do		-	1 month	½ do	*108
5. do		-	1 month	6 do	207
6. do		1	9 days	18 do	192
7. do		2	1 month	3 days	240
8. do		3	9 days	4 do	132
9. Metrorrhagia	} 36 30 30 35 49	2	8 days	24 hours	180
10. do		5	6 hours	½ do	51
11. do		sev'al	7 days	10 days	192
12. do		10	4 days	5 do	288
13. Carcinoma uteri		-	36 hours	36 hours.	120

* “In this case the discharge ceased in a quarter of an hour after the administration of the first dose, 48 grains; the administration of the ergot was, however, continued until the third day.”

ANIMAL MAGNETISM.

M. Andral, the distinguished French physician, has been delivering some lectures in Paris on animal magnetism. The professor, on com-

mencing the lectures, was very credulous in regard to the reality of the absurd narratives which have been lately published on this subject; but his own lectures, given with the view of proving some of these, it would seem, had the effect of making him more sceptical, for he admits that he was more credulous in his first lecture than in his last, delivered *only* a few days afterwards; and we have little doubt that, by the end of a fortnight, his good sense will have induced him to dismiss all such follies from his excellent and highly gifted mind. Indeed, the two facts on which he rests, and which he considers as unquestionable, we conceive ought not, in a question of science, to have the weight of a feather. The first was that of a silly young man, a cook of a "*nervous temperament*," who, being seized and held firmly for sometime by a hysterical patient, was immediately afterwards attacked with symptoms of general uneasiness, which terminated in convulsions. These became afterwards periodical, and towards the close of every paroxysm, *it is said*, the patient could not hear by his natural organ, the ear; but when Dr. Ceni, the physician of the Della Vita, bellowed into his epigastrium, and over the apex of the heart, he heard distinctly, and answered immediately. Inference in this case of somnambulism—either the stomach or heart were converted into organs of hearing!!!

The second case is just as well worthy of credit. It is related in a thesis published by a Dr. Fillassier, entitled "*Considerations on Animal Magnetism*." This young gentleman tells us, in his introduction, that he was "*pas incredule mais sceptique*." This scepticism could not, however, have been very strong, seeing it was completely removed by an experiment which he made on one of his fellow students. The first operation made his "*victim*," as he is pleased to call him, bellow and hiccough, and roar, and make all manner of ugly faces; but his second, we suppose, administered as a reward for his excellent performance in the first application, had quite a contrary effect. It was extatic bliss, and made him breathe out "*oh! what happiness; one cannot be happier in paradise*." Now we are quite sure that if any of the students of Philadelphia should feel disposed to write a thesis on "*animal magnetism*," that they will have no difficulty to select a fellow student who will have wit and humor enough to perform the part of a *magnetised animal* as naturally as the companion of Dr. Fillassier. But of this we feel very certain, that there is no Ameri-

can student who would waste his time in writing on such a subject; or, if he did, would he meet with a single physician in this country who would give credence to his absurd vagaries?

There was one part of M. Andral's lectures which amused us exceedingly. Those who are acquainted with the history of somnambulism, must be aware that somnambulists claim the faculty of taking a peep into the interior of the body, and making an ocular examination of the state of the organs. Last century these "*gifted*" individuals, in looking through the walls of the belly, saw nothing but the bile and various humors in great commotion, quarrelling and fighting most pugnaciously, and conceiving that the disease depended on the battle held by these troublesome and ill-tempered tenants, without attempting to settle their differences, they expelled both armies, root and branch, by emetics and purgatives, bringing the one party up, and sending the other party down. Now, however, when a somnambulist indulges himself with a look into the interior of a patient, he can neither discover bile nor any other humor, but he is sure to discover the mucous coat of the stomach and bowels of a bright scarlet color; and to remove this he prescribes a few leeches to the anus, and plenty of gum water.*

This fact is worthy of being noted; it teaches us that the mind which is credulous enough to give credit to *animal magnetism*, will believe any absurdity, even the greatest of all absurdities, the "*PHYSIOLOGICAL SYSTEM*" of M. Broussais. It would be a happy circumstance if the operation of the system of that gentleman was as innocent in its results as the juggling folly and falsehood of the somnambulists. But, alas, it is very different. The believer in animal magnetism is a very harmless individual. He wastes his time to render himself ridiculous. But the student whose mind becomes infatuated by being taught to believe in the specious but most fallacious doctrines of Broussais, on entering on his profession becomes a most dangerous character; and unless he is induced to pause and discard his system after the sacrifice of a few victims at its shrine, the desolation he will produce in the district he practices, is incalculable. It may be said "*surely a few leeches and a little gum water will kill nobody*." Let the physician never forget that it

* It is scarcely necessary to state that M. Andral ridicules the existence of this faculty.

is his duty to cure his patients, and that, should he lose them by the employment of trifling and inert remedies, when they might have been saved by an energetic and vigorous system of treatment, he becomes really and truly their destroyer. We do hope and trust that the intelligent practitioners of this country, whose extensive practical knowledge of their profession must have convinced them the diseases of the United States are generally of the most acute character, and such as require for their cure the most vigorous treatment, will exert themselves to put down the "PHYSIOLOGICAL SYSTEM" of M. Broussais, which, we are sorry to find, is attempted to be inculcated and made fashionable by the publication of the works of that author, and by teaching his doctrines.

ARTIFICIAL ANUS.

In the reports of the cases of Hôtel Dieu, furnished to the Medical Gazette by Mr. Litchfield, there is a case of operation for the cure of artificial anus by the Baron Dupuytren. Previous to commencing the operation, M. Dupuytren exhibited the instrument which he has invented for the cure of the disease; he likewise stated that he had succeeded lately in four cases. The *enteretome* is about six inches in length, and resembles a pair of straight forceps. Each blade is serrated and unequal, and the one called the male is received into a groove which runs through the centre of the other, called the female. The teeth are thick, and grasp the membrane when applied to it tightly, but without cutting; a screw passes through the handle of the instrument by which the blades are kept in their situation, or tightened, if necessary.

M. Dupuytren introduced the blades of the *enteretome* separately, through the external wound, into the two portions of the intestine, and fastened them with the screw. The instrument was left fixed in its place, and the patient placed on low diet.

The operation for the cure of the artificial anus we consider as one of the greatest triumphs of modern surgery. The principles on which it is predicated are purely philosophical, and the reasoning strictly inductive. The honor of its discovery is unquestionably due to Dr. Physick, the late distinguished professor of anatomy in the University of Pennsylvania. It is true that the "*modus operandi*," adopted by M. Dupuytren, is different from that pursued by Dr. Physick, but the principle is precisely the same,

and the principle of the operation is every thing. We shall ever be true to our motto, "PALMAM QUI MERUIT FERAT," and shall, in an early number under our editorial head, endeavor to do justice to the true discoverer of this most beautiful and scientific operation.

INTERESTING CASE OF GLANDERS IN THE HUMAN SUBJECT.

"A man, aged twenty-three, was admitted into St. Thomas's hospital with no other complaint than general indisposition and debility. A few days afterwards profuse diarrhoea supervened; and when this was, with some difficulty, arrested, he began to complain of much pain in the head and became delirious, to mitigate which leeches were applied to the forehead; he then spoke of wandering and acute pains every where indicating some rheumatic affection; and a tumor appeared on one of the metacarpals, and another on one of the metatarsals, seemingly of a gangrenous nature. The pain in the head would again return, attended by delirium, so that he was compelled to be strapped on his bed, and all the while his flesh was wasting, and his strength diminishing, and, in fact, he was evidently sinking.

"Five days, however, before his death, the site of the leech-bites assumed a purple puffy appearance—the approach of sloughing was indicated, and similar soft tumors appeared on the back part of the head, and rapidly increased until the posterior part of the head assumed a strangely swollen and unnatural appearance; at the same time some scattered large globular pustules began to arise on the neck, and there was occasional discharge from the right nostril, which was thin, yet somewhat adhesive, of a yellowish brown color, and exceedingly offensive. A smaller discharge, but not so frequent, appeared also from the left nostril. The man now began to rally a little, and could be induced to enter into a somewhat connected conversation.

"The tumors increased in number and size but were still promiscuously scattered, and many of them appeared on the arms and on the legs. There were, on the course of the principal lymphatics, slight elevations of the integument which, on pressure, seemed to indicate the presence of a fluid, and some of which began to assume a red, and even a purple hue.

"The resemblance between these new appearances, and two cases of supposed inoculation with the matter of glanders, which had occurred in this hospital in 1829, under Dr. Elliot-

son and Dr. Roots, struck Mr. Stone, the assistant apothecary of the hospital; and the former gentlemen happening to be in the hospital, and the physician by whom the patient had been admitted not having to attend again until two days had passed, Mr. Stone requested him to see the man. Dr. Elliotson immediately confirmed Mr. Stone's diagnosis; and, on questioning the poor fellow, it was ascertained that he had had a glandered horse under his care a month before, and that the discharge from the nose had often come upon his hands. The case was now sufficiently plain, but the patient was too far gone to admit of the slightest hope of cure, and the attention of the medical attendants was confined to the mitigation of the severest symptoms, and particularly an insatiable thirst with which the sufferer was tormented. Dr. Elliotson had the kindness to inform us of the case, thinking that the inspection of it would be interesting to veterinary practitioners.

"On Saturday, the 16th, we saw him; the appearances were as above described, except that the puffy tumors were assuming a more gangrenous character; the pustules were more numerous on the face and neck, but not running in any decided direction, and one of them on the neck was as large as a horse bean. The discharge from the right nostril was more profuse; there was occasional discharge from the left one, and from both it was insufferably fœtid. His eyes were closed, with considerable advance of the lids. On the arms and legs were numerous smaller pustules, which dried up and scaled off; but there were on both a few elevated spots, evidently in a line, and following the course of a lymphatic; some possessing no discolorization, others of a dark leaden hue, and of various degrees of hardness, and some of them giving the perfect indication of fluid somewhat deeply seated. On one of the ankles, and on the back of the left hand, were more decided puffy swellings, acquiring rapidly a purple tinge. The general emaciation and debility were extreme. The thirst was dreadful. The poor fellow was continually crying out "water! water!" and when the sister fed him with a toast and water from a spoon, he would cry impatiently, "that's of no use! give me half a pint of water—bring a pail of water—throw a pail of water over me!"

"We obtained permission to open one of the pustules for the purpose of innoculating an ass with the matter, and another was opened for the use of the medical officers of the hospital. On

drawing the poor fellow into interrupted and not always intelligible conversation on his own subject, he again confessed that there had been a glandered horse in the stables in which he was a helper, and that it had long been kept by itself; that he was accustomed to groom it, and that it might be six or seven weeks ago when he first began to attend to it; and that for a fortnight or three weeks, or, more, before he was admitted into the hospital, he had not been able to attend as usual to his work, and did not know what was the matter with him.

"A wound which had been upon the back of his right hand at that time was perfectly healed; there was no redness or inflammation about it, nor could any corded absorbent be traced from it.

"About two o'clock on the following morning he died; but sometime before that he rallied, and gave an interesting illustration of the ruling passion strong in death. "I am dying," cried he; "I shall die soon, but I shall die happy—I know now I am glandered—I shall die as my horses do—I shall die quite happy!"

"A *post mortem* examination took place on the noon of the following day, at which we were also permitted to be present. The pustules about the face and neck had all subsided. The puffy tumors in the forehead and back part of the head were gorged with a yellowish semi-transparent glairy fluid, giving to the whole a kind of gelatinous appearance when cut into, yet with scattered minute abscesses. There was neither offensive smell or decided gangrene. The pericranium was sound; and, on dissecting to it, it was thought by some that there were minute granulated tuberculous substances on it, but they appeared to us to be only portions of this gelatinous substance left in the dissection.

"On raising the skull cap, the frontal sinuses were exposed, and in one of them was a very small congeries, or bunch of tubercles, or rather vesicles, hanging loosely in the cavity.

"There was no ulceration, or inflammation, or collecting of pus, or any other fluid, in the sinuses connected with the nasal cavity; but on the right side of the septum there was considerable injection and two minute ulcers, with the preparatory vesicle of a third, in a line and following the course of the principal vein of the septum. The edges were decidedly elevated, and seemingly erected, and bore, on a small scale, no indistinct resemblance to the glandered chancre of the horse.

"The most important lesion, however, was found at the base of the larynx, where was a veritable glanderous chancre, with perfect elevated, abrupt, and crested edges; but its central depression was not so great as is usually seen in the horse; near this also was a preparatory vesicle.

"The lining membrane of the trachea was slightly inflamed, the bronchi more so, and puriform fluid might be squeezed out of many of the bronchial ramifications, but there was neither vomica nor tubercle. The other viscera were comparatively healthy, except in the lower portion of the colon there were many enlarged glands, and even the membrane seemed abraded, an appearance which accounted for the diarrhoea.

"On the whole, the examination was satisfactory. The characteristics of glanders were sufficiently developed, but modified by the difference of subject."—*Veterinarian*, edited by Mr. Youatt.

Dr. Elliotson concluded a chemical lecture, which he delivered on the above case, with the following excellent observations, to the truth and justice of which we entirely subscribe; and we should wish them, for the interest of humanity, to be circulated as widely as possible, as the general public are not aware of the awful risk of inoculation incurred in cleaning glandered horses.

"A few words, gentlemen, as to the sanitary application of the facts which are now so prominently before us. The subject is one of the highest public importance, and demands the serious consideration of those on whom the care of the public health devolves. The facts peremptorily behove all persons who have any thing to do with glandered horses instantly to destroy them, and in all cases to do so unless a cure be discovered for the disease, or some new treatment be proposed. I am told by Mr. Youatt and other veterinary gentleman, that at least forty-nine out of every fifty glandered horses ultimately perish of the disease. Then why suffer animals so frightfully dangerous to linger out the remainder of an existence which they pass so wretchedly, and run the chance of giving the disease to other animals, and to man? With such evidence before us, every glandered horse in the kingdom ought to be killed forthwith, unless it is thought fit to institute some new investigation into the treatment of the disease. Nothing can be more wrong than to keep glandered horses alive for the little work which may, in spite of the debilitating effects of the disease, be forced from them. Let

their owners but reflect for a moment on the multiplied opportunities which occur for contagion between these animals—the innumerable occasions for smearing with the poisonous matter the various parts of the stable; the risk of depositing it on the grass when turned out; and, above all, of giving it to man, who must assuredly perish by it in the most dreadful manner, for no remedy is known for it. The effect is awful to me beyond any thing that I ever witnessed in disease. Here we may have young men, in all but perfect health, one week after acute suffering, offensive discharges, and sores, and putrefactions, corpses on the next. I thought when I had seen the fatal cholera, that I had witnessed the same of sudden suffering and death, but the man who is glandered presents a scene quite as heart-rending to our view as the cholera patient.

DELIRIUM TREMENS.

Dr. James Johnson, the distinguished editor of the *Medico Chirurgical Review*, in a late discussion at the Westminster Medical Society related to the society four cases of this disease which had lately come under his observation, the subjects of which had not been guilty of the slightest degree of intemperance.

The patients were young ladies, residing at a country boarding school. The symptoms were sleeplessness, (one of them had not slept for eight nights,) spectral illusions, ferret eyes, cold clammy skin, constant jactitation, &c. &c. Indeed I observed that he never saw the symptoms of *delirium tremens* more marked and complete in the cases of drunkards. In three of the cases the ladies had remained at school during the holiday recess, a long way from home and their parents for the purpose of devoting that portion of time to study, to remedy the defects of a neglected education. They had labored most assiduously, and the delirium commenced immediately on the return of the other pupils at the commencement of a new session. On visiting the cases he attempted to produce relief by the exhibition of opium, but that only aggravated the disease. Cold to the head, soothing treatment, and moderate nourishment, were adopted with success.

Dr. Granville, who has announced his intention to publish a work on abortion, illustrated a splendid series of engravings from beautiful and correct drawings by Mr. Perry, in an address which he delivered to the Westminster Medical

society, on the evening of the 23d of February last, stated the following interesting facts in relation to the ovum.

"The ovulum destined to be fecundated pre-exists in the vesicles of the ovarium, (De Graaf,) and has been observed and accurately described by Boer. The structure of the ovulum, both before and after fecundation, resembles that of the ovum of birds under both these circumstances. When the ovum travels from the ovarium to the uterus, and enters the cavity of that organ, it is invested and surrounded by a *cortical membrane* covering what has been denominated the "shaggy chorion;" that this *cortical* membrane of Boer is the identical membrane to which the name *decidua reflexa* has been given, and which has been mistaken for a uterine production; and to account for which, an improbable and unintelligible process has been imagined by Hunter, and repeated by Denman and Burns, that there is no such thing as a *decidua reflexa*. The chorion and amnion are vascular membranes, susceptible of congestion, inflammation, and consequent thickening. The Doctor, in evidence of this, exhibited some splendid drawings. That the amnion is a secreting membrane; that the ovulum, before and after fecundation, until it is firmly connected with the uterus, lies and grows on its own inherent life principle, being a period of from one to eight days generally; that even after the full period of gestation, if the mature ovum be expelled, perfect and intact, the fœtus has shown its capability of living for a space of time equal to twenty, thirty, or even forty, minutes; that the appendages observed on the surface of the chorion are partly suckers and partly vessels destined to carry the blood of the fœtus as soon as sanguination begins in the latter, and that the suckers serve to draw from the cortex the nutriment for the embryo while the ovulum is yet independent of all attachment to the mother; lastly, that the connection of the embryo with the mother is not what has hitherto been, and still is conjectured in this country, by immediate vascular transmission. Dr. Granville showed that there were no fewer than two screens between the seminal points of the uterine vessels on the one part and the embryonic vessels on the other, which most effectually prevented all direct and continuous communication. And he informed the society that he not only had Lauth of Strasburg, as far back as the year 1826, stated this fact in contradiction of every thing which had been said in this country by Hunter and his successors; which fact, found-

ed on anatomical examination, had been confirmed by Dr. Carus of Dresden; but that, for two or three years previous to that time, he, Dr. Granville, had been in the habit of stating to his pupils, in his lectures on midwifery, that there was a membrane which completely invested and covered the cotyledons of the placenta, dipping amongst them after the fashion of the arachnoid membrane of the brain, and completely preventing any continuous transmission of blood from the mother and the fœtus. To this membrane Dr. Granville gave the name of the *membrana profusa* of the placenta, to distinguish it from the *decidua*; and he has more than once exhibited its existence over the surface of an intact placenta, and insufflated air under, or injected the same into it."—The above abstract of Dr. Granville's observations are taken from the LANCET of March 2, 1833.

On the publication of Dr. Granville's work, we shall furnish the readers of the Register, &c., with a full and critical account of his opinions on this interesting subject.

Six cases are reported in the Medical Gazette for April, by Mr. Edward Copeman, apothecary to the Norfolk and Norwich hospital, in which severe rheumatisms of various standing are said to have been cured by the exhibition of an extract of the common artichoke, (*Cynara Scolymus*.) The extract is prepared by evaporating the expressed juice of the leaves and stalks. When given in large doses, it acts more or less violently on the bowels, causing griping pains and purging, but when these appear, its beneficial effects on the disease ceases. Three grains of the extract were given every three or four hours. We confess we would not place much confidence in this remedy, but we mention it as we are not aware that the artichoke has before been introduced as a member of the materia medica.

MEDICAL NEWS.

The King of the French has conferred the decoration of the legion of honor on Sir Astley Cooper; and the French Academy of Sciences have nominated the worthy Baronet a corresponding member in the room of the late M. Delpech.

It is currently reported that professor Dunglison, of the University of Virginia, has been elected to the chair of the Institutes of Medicine, vacated by the resignation of Dr. McDowell.

The editor of this journal was a colleague of Dr McDowell's for five years, and he feels proud in being permitted to call him his friend. A more excellent and estimable man he never knew; and he trusts, although he may have been induced, on account of his advancing years, to retire from the duty of his professorship, that he may long continue to enjoy that "*otium cum dignitate*," to which the virtues of a well spent life so well entitle him.

Rejection of M. Broussias by the Academy of Sciences.

A vacancy having occurred in the Academy of Sciences, the author of the "PHYSIOLOGICAL SYSTEM," became a candidate for the honor of enrolment amongst its members. The candidates were M. M. Broussias, Double, and Brechet. It was ascertained on the first ballot that the votes of the fifty academicians were awarded as follows :

For Mr. Double 23, M. Brechet 16, M. Broussias 10; on the second, M. Double 24, M. Brechet 23, M. Broussias 4; and on the third and last, M. Double 36, M. Brechet 24, M. Broussias 0. M. Double was therefore declared the successful candidate.

ASSASSINATION OF M. DELPECH.

On the 29th of October a ruffian by the name of Demptos ran towards Delpech's cabriolet with a double barrelled gun in his hand. He fired, and the ball entered the left side of the chest; he fired a second time, and killed the servant on the spot. Delpech died in a few minutes. The assassin was a native of Bordeaux, and aged 36. He had some time before applied to M. Delpech on account of a varicocele, which, by proper treatment, was speedily benefitted. He returned from Montpellier to Bordeaux, and there fell in love with a girl, whose parents, however, refused their consent. On being urged, however, to explain their reasons, they admitted that M. Delpech had been consulted by them, and that his opinion was not a favorable one. Demptos, forthwith, repaired to Montpellier, resolved either to force a retraction from Delpech of what he had said, or to assassinate him. On the evening before the murder, Delpech was in the theatre along with his son; Demptos went up to him, and demanded a letter which might confute the opinion given to the parents of the girl; the professor refused to comply; and the villian left him with threats of revenge:—*Medico Chirurgical Review for April.*

DEATH OF M. PORTAL.

This distinguished veteran died on the 23d of January last, at the good old age of 91, as rich in honors as in years. He was the Nestor of the French physicians; first physician to Louis XVIII, and Charles X., perpetual president of the Academy of Medicine, member of the Academy of Sciences, and of many other celebrated societies. His "History of Anatomy and Surgery" has long been esteemed and admired; but his greatest work was the "System of Medical Anatomy," which laid the foundation of sound pathology in France.—*Ibid.*

A man in Paris swallowed two ounces of sulphuric acid, and, strange to say, the pain at the epigastrium was very inconsiderable, although all the other symptoms of poisoning from such a virulent agent were strongly marked.—*Gazette Medicale.*

Precocity of developement of the genital organs in an infant.

In this infant, at the time of its birth, the mammae were unusually large, and the mons veneris "garni" with hair; at three years of age the catamenial discharge appeared, and has continued regularly to the present time, a period of eighteen months.—*Ibid.*

Insanity in France.—The number of the females exceeds that of the males in almost all the lunatic houses throughout France. Between the 30th and 50th year, the influence of age appears to be nearly the same on both sexes; but more men than women become deranged before the 30th year, and the reverse holds good after the 50th year. Not many cases of insanity occur in young persons under 15, nor among the aged after 60, except of that form which some have termed "dementia seniles." As to the influence of marriage on the frequency of insanity, it is observed that nearly twice the number of cases occur in bachelors as in married men, and more than twice the number in single than in married women. If the cases of insanity are grouped according to the three-fold division of mania, monomania, and dementia, we find that more than one-half the number belong to the first class, about a fifth of the number to the second, and only a tenth of the third class, viz., that of idiocy. Mania often succeeds to monomania, and both these states not unfrequently pass into dementia.

It is much more rare to observe the idiot become maniacal, either generally or upon one subject. The most common pathological appearance observed upon dissection, is effusion of a sero-lac-tescent fluid between the arachnoid and pia mater—sometimes wasting or degenerating, at other times increase in bulk; some of the cerebral convolutions is distinctly marked; and in several cases the morbid alterations have been found well to accord with the phrenological positions of the organs. It is right, however, to remember, that very frequently not an appreciable trace of disease is found on examination of the brains of insane persons.—*Ibid.*

It affords us much gratification to be enabled to state that Mr. Millington, late professor of experimental philosophy in the Royal Institution of Great Britain, has established in the city of Philadelphia a depot and manufactory for chemical and philosophical instruments. Mr. Millington's whole life has been devoted to scientific pursuits; and for many years before leaving his native country, he was intimately known to, and highly estimated by the most distinguished savans of Great Britain. There is certainly no man now living whose knowledge better qualifies him for the selection and manufacture of philosophical apparatus; and we congratulate the scientific public of the United States on his settlement in Philadelphia. It will enable our universities now to supply themselves with the best instruments which can be made at home, and at a much lower price than they can be procured from abroad. We are happy to find that orders are pouring in upon him in such numbers as to require him to increase his establishment.

DEAF AND DUMB.

The third circular of the Royal Institute of the Deaf and Dumb, at Paris, states the following facts. France, with its 32,000,000 of inhabitants, contains 20,189 deaf and dumb; that is to say, one in every 1,585 of the population. In Russia, the returns give 1 in 1,548; the United States of America, 1 in 1,556, for all Europe, the proportion is as high as one in 1,537.—With regard to the education of the deaf and dumb, it appears that on an average throughout the whole of the civilized world, not above one in 24 have the means of instruction; in France, however; the proportion educated is one in every four.

ADVERTISEMENTS.

MR. JOHN MILLINGTON,

Late Professor of Mechanics, in the Royal Institution of Great Britain, and of Natural Philosophy in some of the principal scientific Institutions of London, begs to inform the scientific public of the United States, that he has established an extensive depot and manufactory for all kinds of Philosophical, Chemical, Optical, and Mathematical Instruments, Apparatus, Machines, and Implements, including Chemical Tests and Reagents, Minerals, and all articles connected with Scientific Instruction, Investigation, and Amusement, at No. 187 South Third Street, Philadelphia; from whence articles of the greatest purity and perfection for Chemical and Philosophical experiments, and instruments fully equal to any that are imported from Europe, will be carefully packed and forwarded to any part of the Union, at very moderate prices for ready money.

It is requested that all letters of inquiry only, may be post paid.

PROFESSOR PATTISON'S SYSTEM OF ANATOMY.

JAMES TOWAR, No. 19, St. James street, Philadelphia, will shortly put to press and publish, a work to be entitled THE ANATOMY OF THE HUMAN BODY, described with a view to its Surgical and Physiological Relations and Connexions, illustrated by numerous Engravings, by GRANVILLE SHARP PATTISON, M. D. Professor of Anatomy in Jefferson Medical College, Fellow of the Royal College of Surgeons, Member of the Medico-Chirurgical, and Westminster Medical Societies of London; Member of the Societ  Phylomatique, and Societ  Medicale D'Emulation of Paris; Member of the Wernerian Society of Natural History of Edinburgh; and Member of the Faculty of Physicians and Surgeons of Glasgow.

DR. REVERE,

Professor of the Theory and Practice of Physic in Jefferson Medical College, Philadelphia, is preparing for the press a work, on the ENDEMIC DISEASES OF THE UNITED STATES.

The number of interments in New York, during the week ending on Saturday, was 126. In the corresponding week of 1831, were 131; and in that of last year, when the cholera was prevailing, the number was 510.—*N. Y. Paper.*

REGISTER AND LIBRARY

OF

MEDICAL AND CHIRURGICAL SCIENCE;

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, SEPTEMBER 19, 1833.

No. 2.

MEDICAL EDUCATION.

As one of the principal objects which we have had in view in the establishment of the REGISTER AND LIBRARY OF MEDICAL AND CHIRURGICAL SCIENCE, has been to promote medical science in this country, and as we feel persuaded that its advancement will ever be measured by the state of medical education, we have much pleasure in presenting our readers with an interesting essay on this subject in the present number. It is written by a gentleman who has studied his profession in the principal medical institutions both of this country and of Europe; who is familiarly acquainted with their details, and who is therefore eminently qualified for the task he has undertaken.

We doubt not that the topics so ably discussed by him will receive from the senior members of the profession that attention to which their importance so justly entitles them; and that, when consulted by pupils as to the best mode of pursuing their studies, they will permit his observations on this subject to have the influence of which they may consider them deserving.

Should any of our readers be advocates for the "quizzing," or "grinding," or "cramming" system of medical education, which is reprobated in the following essay, and should they feel disposed to defend it, our pages will be opened with pleasure to them, provided their observations, like those of our present correspondent, are free from all personalities. Truth and the interest of medical science are what we contend for; and, as free discussion will certainly elicit the former and promote the latter, so far from being opposed to it, we most anxiously court it.

[COMMUNICATED FOR THE REGISTER, &c.]

There are few topics more important, or which at this time more imperiously demand the attention of the profession in the United States, than medical education. Freedom of discussion in this inquiry is indispensable; yet, to accomplish this without making observations that may appear invidious, will be scarcely possible. The writer can only disclaim all intention of pointing his remarks at particular institutions or individuals, any more than is inseparable from the free discussion of the subject. New modes of medical education, within a few years, have been adopted in some of the most celebrated schools of medicine in this country, which, it is believed, are not known or practised in any other. It is the object of the following observations to inquire how far they are fitted to accomplish this important object.

From the unprecedented increase of population in the United States, and the numerous diseases necessarily incident to new countries in a warm climate, and especially where the inhabitants are, for the most part, foreigners, natives of high northern latitudes, the demand for physicians has been very great. The consequence of this has been, that the standard of medical education has not, in many instances, been so high as the advanced state of civilization and general education in the country would otherwise have demanded. It is undoubtedly true that many young gentlemen are more solicitous to obtain their diplomas than a sound knowledge of their profession; nor can it be denied that some of those to whom this great interest has been con-

ided, have, in some instances, perhaps too readily yielded to this spirit. It is not intended to insinuate that this has been done from any improper motive, but that, in the general bustle and movement of society, arising from the above circumstances, mistaken views and practices have crept in, which, it is believed, if not checked in time, must have a most pernicious influence upon the profession.

I shall describe, first, the course of medical education pursued in one of the most distinguished schools of medicine in the United States, and probably, in some degree, adopted in others. The course most commonly pursued at present by those young gentlemen whose means enable them to acquire the most liberal medical education, is something like the following:—Those who reside in the country may spend, perhaps, the first year and a half of their medical studies in the office of some practitioner in their neighborhood. They then go to one of the schools of medicine situated in one of the large cities, and spend, perhaps, the remainder of their time before coming forward for their degrees. Supposing the individual to arrive in the autumn, the month of November, when all our principal medical schools begin their courses. If he would come forward at the end of two sessions for his degree, he is compelled to take a full course of lectures, as it is called. That is, he must daily attend six lectures at the college, and twice a week visit the hospital. Besides this, he is required to attend demonstrations in anatomy, and is expected to practise dissection. The course lasts four months. If the usual allowance of time be made for eating, sleeping, and indispensable exercise, it will be perceived that very little will be left for reading or practical observations on the sick, during the regular academical course. But no sooner has the regular course of lectures terminated, than a new one begins, which continues until the period for the commencement of the next regular academical course—the first of November—again arrives. But the summer courses are not given exclusively by the Professors. At the termination of the winter course, the regular academical association is temporarily dissolved. The Professors then associate themselves with various practitioners, and thus form a number of *demi official* new schools. The principal object of these new associations is to prepare the candidates for their examinations for their diplomas. For a fee of a hundred dollars, the pupil is called the private pupil of the Professor, and

is entitled to attend all the lectures and examinations, or *quizzes*, as they are called, of the teachers of the *demi-official* school. It is after the termination of his first academical course of lectures, that the candidate feels that the proper business of his medical education has begun in earnest. It constitutes the great business of the summer course and of the private school to prepare him for his examination at the next spring. With this object, an incessant system of lecturing and *quizzing* is carried on, with increasing activity, until after this great consummation is obtained. A considerable number of the students, especially the residents, attend both the summer and winter courses, during the whole term of their studies.

The examination of the candidate commences immediately after the regular academical course is completed, and is conducted privately by the Professors. There is but one examination. It is not easy to determine the time occupied at these examinations. They will, however, perhaps, average from a half to a whole hour for each candidate.

The prominent and strong objection which lies against this system is, that in it the proper objects of a medical education are entirely lost sight of. The course of instruction which I have thus described has almost exclusively one object in view:—*It is that of preparing the individual to answer those questions that will probably be proposed to him when he comes forward for his examination for his degree.* Every other consideration is merged in this. It proceeds on the false assumption that a facility in answering questions on any given topic implies a knowledge of the subject.

By a long system of drilling, any individual of ordinary intelligence may learn to answer questions promptly on any given subject, though, at the same time, he cannot be said to have absolutely any *knowledge* of the subject. There is a great difference between *learning* and *knowledge*. To be an anatomist, or to have a *knowledge* of anatomy, a man must become acquainted with the composition and structure of the different parts of the body, from frequent inspection and repeated dissection. But, by a suitable drilling, he may acquire *learning* enough to answer questions correctly and promptly, in this science, though he had never taken a scalpel into his hand, or seen a dissection, in his life. Again: a person may readily answer questions as to the character of disease and the best mode of treating it,

who had never seen a case, or read a book, but the most common elementary treatise. But can such a person be properly said to be an anatomist or a physician? Can he be said to have fulfilled the objects of a medical education?

It would appear that very erroneous opinions are abroad, even among intelligent medical men, on this subject; and that a degree of importance is attached to a facility in answering questions which it does not merit. This is only one of several tests by which the fitness of a candidate for the practice of the profession of medicine should be determined. The time he has devoted to professional inquiries, the facilities he has possessed and availed himself of, for dissection and visiting the sick, and seeing the surgical operations of others, and his habits of reading and study, are all circumstances, a knowledge of which is, to the extent, as important in enabling us to judge as to his qualifications for practice as his answering questions. Dr. James Johnson — and I know of no higher authority in all that pertains to medical knowledge — has made some very strong remarks on this subject, and illustrated them by some striking and apposite examples that had fallen within his own knowledge.

“The true and sole test,” says he, “of medical knowledge, will not be found in oral examinations, however carefully conducted.” He had known numerous instances, when the public service was very much in want of medical officers, where young men had passed examinations under various constituted authorities, without ever having attended a single medical lecture or dissection, or hospital attendance, and that many of them passed with *eclat*. In one instance, which he particularly knew, the individual had been brought up in a druggist’s shop, and never had one particle of medical education beyond what his master’s shop and library afforded. Yet this person was called back by the examiners, and complimented on the extent of his anatomical and surgical knowledge. On the other hand, he informs us that “Dr. John Mason Good, the author of the *Study of Medicine*, was recently rejected, after an examination by the President and Censors of the College of Physicians,” — all of whom he, Dr. J., believed, were friendly to the candidate. Here then, was one of the most erudite physicians of the age, after being in extensive practice for many years, and after having published numerous medical works of merit, unable to make his acquirements apparent, in an examination which a tyro in the profession might undergo — and was

ignominiously rejected !!! Again: — One of the most eloquent medical teachers, popular writers and successful practitioners of the present day was rejected a few years ago, in a public examination.^(a) Will it be affirmed, with these and many other similar facts before our eyes, that an oral examination is the proper test? “There are men capable of being crammed so brimful of technical learning (it is not knowledge) under the magic influence of the professed grinder, that they will answer all questions in anatomy, pathology, and therapeutics, like parrots, yet scarcely be able to tell one tissue or muscle from another!” — *Med. Chir. Rev. April, 1827*.

But not only is this system of medical education objectionable on account of the undue emphasis laid on a facility in answering questions but the great end of public medical schools and lectures appears either to be misunderstood or lost sight of. This practice of incessant lecturing, and *quizzing*, from one end of the year to the other, appears to be founded on the idea that every thing is to be done by the medical teacher and nothing by the pupil. It is literally a system of *cramming*, in which the pupil is quite passive. The intellectual improvement under such a mode of education, must be as unnatural and morbid as the physical growth of the inferior animals, when subjected to this operation. The pupil, under this system, instead of being considered as a young gentleman, whose mind is already developed and prepared for the investigation of the highest branches of knowledge, is treated as if he were in the imbecile state of early childhood. He is not even treated as if he possessed as much intellectual energy as the members of our primary schools. They are required to study their lessons, it being understood to be the duty of their teacher merely to hear them recite, and see that they understand them. But the medical teacher not only catechises his pupil, and thus hears him recite, but he relieves him from the labor of studying his lesson, by constantly repeating it until he has learnt it by rote. The mind of the medical student is thus deprived of all necessity of effort and salutary exercise; the habit of study and reflection is either never acquired, or, if they had before existed, they must necessarily be soon dissipated by the habit of thus spending their time in lounging from one lecture room to another.

But it is not the object of medical education merely to teach the student to answer questions,

(a) Dr. Armstrong, the author of the *Treatise on Fever*, &c. &c.

to save him from the labor of thought and study. He who hopes to attain respectability in the profession of medicine without intellectual effort and persevering study, can scarcely fail to meet with disappointment and discomfort. On the contrary, it is the proper object of medical education to make the student acquainted with things instead of names; to exercise his mind to thought; to stimulate it to exertion and study; to discipline his senses; to cultivate habits of close observation; and to impart to him with just and sound modes of reasoning in his profession. These are the only legitimate objects of a medical education, nor can any system be considered good where they are not constantly kept in view.

There is another injurious consequence that may be mentioned, as an almost necessary result of this exclusive system of lecturing and quizzing. It is the natural tendency of this system to rammer the mind of the student, and to discourage every thing like freedom of thought and inquiry. There are certain sets of opinions which alone will be deemed orthodox. Every question will have its appropriate answer, which must be expected to be made according to the *class book* of the teacher. Instead of considering any of the opinions taught by the Professor, as found in the *class book*, merely as the dogmas of a few individuals, he will be apt to regard them as ultimate truths,—the only just basis on which his own opinions may rest. He will almost unavoidably get to consider his *class book* as his professional creed, and his teacher the only authority fit to expound it. It is scarcely necessary to say that such views are most unsound and dangerous. In the present state of the profession, knowledge is loose and unsettled. On the same topics we find men of equal ability and experience entertaining opposite opinions. No individual or book can be referred to as infallible. On the contrary, we find the strong views of the profession, and its ascertained truths, scattered through a great number of books, and mingled with others equally false and erroneous. To approximate just views it is necessary that the course of reading should be extensive and eclectic. Instead of forming his professional opinions from a few elementary works, (or *class books*, as they are called in this country,) he should be impressed with the necessity of going back to the sources from which these class books are derived. He should study the opinions of the eminent members of the profession in their own works, and, by compar-

ing them with each other, and his own observation and good sense, thus form his own opinions. Must it not, and does not daily experience show, that the actual tendency of the opposite system is to produce superficial and unsound physicians? To what other reason can we impute the ready welcome which has been recently given in the United States, especially by many of the junior members of the profession, to the dangerous and absurd doctrines and silly affectations of Broussais? Could all the arrogant pretensions and unphilosophical opinions advanced by this writer have been received with such implicit faith, had the sound learning of the profession been more generally diffused? Is it not attributable, in a great measure, to this new system of medical education; to this sempiternal system of lecturing and quizzing; this habit of receiving all their knowledge second hand, instead of going themselves to the fountain head, and drinking from the Pierian spring?

But if oral instruction, by lecturing and questioning, be liable to so many and grave objections, it may be inquired why not abandon them altogether in medical education? To this it will be replied, that the amplest experience, in modern times, has proved the unquestionable utility of these modes of instruction, as parts of a medical education. Indeed, it is only in public institutions, exclusively devoted to this purpose, and for the most part in large cities, that all the facilities and *materiel* can be found, for acquiring an adequate knowledge of the elements of the profession. It is in such institutions only that the medical student can become acquainted with the demonstrative branches, anatomy, chemistry, pharmacy, and clinical medicine and surgery. He has here presented to his mind, in a limited space of time, with all the appliances to illustrate it, in one continuous and consistent view, the actual state of the different parts, which together constitute the science of medicine. Should the lecturers be possessed of talent, knowledge, and enthusiasm, in the course of a few months a greater amount of useful instruction may be thus imparted than in any other way, and a spirit of investigation awakened. But the question at issue is not as to the utility of public lectures, as parts of a medical education; but only as to the extent to which this mode of instruction can be advantageously carried. Can the student spend the *whole*, or only *part*, of his time, in attendance on lectures, most beneficially? It is replied, as a corollary from what has been already said, that a part, *but only a part*, of each year

can be usefully employed in this way. For the information he has thus acquired, he has principally depended upon others. To work up these materials, and to render them available and useful, must be accomplished by his own exertions. The remaining part of the year should therefore be devoted to observation and study; much time should be spent in the perusal of the standard works of the profession, and every opportunity courted of intercourse with the sick, so as to familiarize himself with its characters, and to render more clear and definite the knowledge he may thus have acquired. He should be intimately associated with an intelligent physician, who will restrain the exuberance of youth, and give a proper direction to his studies; one to whom he may freely communicate all his doubts and difficulties; and from whom he may receive information respecting those minutiae of the profession, a knowledge of which is indispensable in practice. It must be quite manifest to every one that these important objects cannot be accomplished in the brief and distant intercourse which necessarily takes place between a public teacher and his pupils. It is not possible that this can be done by a young man who is spending his time in a boarding house, and, with many others of his own age, constantly passing from lecture to lecture. It is only in the office of some well informed and experienced practitioner that these important ends can be attained. In medicine, as in every other pursuit, there are numerous circumstances, a knowledge of which is not, and indeed cannot be transmitted in books, but which is, at the same time, indispensable to its successful practice. This is called *traditionary* medicine, and can only be acquired from personal intercourse. It is undoubtedly true that some physicians acquire a degree of sagacity in discovering the characters of disease, and a happy tact in adapting remedies to its successful treatment, which seem rather the result of instinct than reason. Much of this sort of skill, it must be admitted, belongs to the individual, is inseparable from him, and cannot be transmitted to others. But the student, by habitually visiting the sick with such a practitioner, and conversing familiarly on its phenomena, his views of the case, and the motives by which he is governed in its treatment, will necessarily imbibe a portion of his spirit, and acquire much valuable information not to be attained in any other way. One of the most accomplished modern physicians asserts that a competent knowledge of the profession can only

be acquired in this way, and doubts if an instance can be adduced of a truly skilful practitioner, who was not the pupil of such a master. (*Chomel Elemens de Pathologie.*)

When we commenced this article it was our intention to have considered, not only the more prominent defects at present existing in medical education in the United States, but also to have pointed out the improvements that have been adopted in other countries, both in the system of medical instruction and the modes of examination for degrees. But the subject has already extended far beyond what was at first contemplated, and we must therefore hasten to bring it to a close. This we shall do after briefly adverting to one other objection, to which we think the above described system is obnoxious.

Inasmuch as oral examination is, and probably always will be, one of the principal tests by which the qualifications of candidates for the degree of Doctor of Medicine will be determined, it is right that he should be prepared to undergo it. In all medical institutions the candidates are in the habit of getting some qualified person to question them preparatory to their examination; and, providing the student has not neglected other and more important duties, the practice may be salutary and laudable. This habit, for a short time before the examination, will tend to give them confidence in themselves in the hour of trial; to renew the memory of the minute facts; and enable them promptly to arrange their ideas so as to give pertinent answers to the questions that may be proposed. We repeat, we do not object to this practice, provided it be kept in the subordinate rank, in medical education, to which it properly belongs, and be conducted by suitable persons. But we confess we cannot think it right that the Professor, who is to sit officially in judgment on the qualifications of the candidate, should receive an extra fee for preparing him for his examination.

We should feel unaffected regret at having it supposed that we impute sordid views to those who view this subject differently from ourselves, and have adopted a different practice. None are more disposed than ourselves to do justice to the elevation of character and disinterestedness of the members of the profession. But, after all, professors are like other men; and, when placed under such circumstances, though perhaps unconsciously, can scarcely fail to be, in some degree, unduly influenced. Say what we will of the elevation and high-mindedness of the Professor, it is certainly subject to the same

temptation. Let us think as highly as we can of the honor and integrity of the individual; still it cannot be denied that he thus excites hopes of favor in the mind of the pupil, and subjects himself to suspicion and scandal. Let any one put it to himself—Is it reasonable to suppose that, after months, perhaps years, of intimate personal intercourse, and after having received considerable fees for preparing the young man for his examination, that the Professor could witness the progress of the examination of such a candidate with the same disinterestedness as a common member of the class, whom he had merely met in the lecture room? Is it consistent with human nature, that there should not be a bias in favor of such an individual? Or is it fair that an individual, who has been thus instructed in the manner in which the Professor conducts his examinations, should be subjected to the same test, and estimated by the same standard, as one who depends alone upon his own acquirements, and who hears the questions of the Professor for the first time? We put these questions with confidence, believing the reply will be the same by every fair and intelligent mind. We might go on and inquire what are the actual results; what proportion of those rejected belong to the summer and *quizzing* classes. But this would be invidious; we shall rest satisfied with referring to the nature of the case, and the universal impression existing among the students on this subject.

But that these views are not peculiar to ourselves, we shall show by referring to some of the most celebrated medical institutions of other countries. It is believed that, with some few exceptions in the United States, such a thing was never heard of as a Professor's taking an extra fee from a pupil for preparing him for his examination for his diploma. Indeed, in any respectable university in Europe, such a course would be considered in the highest degree undignified in a Professor. The very names given to this practice, and the standing of those who pursue it as an occupation, are of themselves sufficient indications of the prevailing sentiments of the profession on the subject. This system of *quizzing*, as it is called here, is termed, in derision, in Edinburgh, *grinding*; and, in Oxford, *cramming*. It is, for the most part, practised by persons holding a low professional rank. They are generally either very young men, or those who are destitute of a practical knowledge of their profession, and devote themselves to *grinding* or *cramming* as an occupation.

We will conclude by repeating, that it appears to us that there is no topic of more importance than that of medical education, whether we regard the dignity of science or the interests of humanity. It is one which the profession is bound jealously to watch over and direct. The power of controlling it is ultimately in their hands. To them the above remarks are respectfully addressed. It remains for them to determine how far they are sound and just.

John Dalton, F. R. S., one of the most distinguished philosophers of the age, has published, in the "Memoirs of the Manchester Literary and Philosophical Society," the results of a series of experiments performed on himself, with the view of ascertaining the quantity of the secretions compared with the quantity of food taken into the stomach. The following is an abridgment:

The experiments were instituted for the purpose of finding the quantity of insensible perspiration, as compared with the quantity of aliment taken. Mr. Dalton remarks,

"It may be proper to observe, that my habits, daily occupations, and manner of living, were exceedingly regular; my health, during the time, was uniform and good; and that the weight of my person has never been subject to much change, since grown to maturity. The first series of experiments was made in the month of March, for fourteen days successively. I had three meals each day—breakfast between seven and eight in the morning, dinner between twelve and one, and supper about seven in the evening, except on two days, in which I had tea to breakfast, and again in the afternoon. The usual breakfasts consisted of boiled milk, with bread and a little oatmeal; and suppers were of the same, with the addition of bread, cheese, and beer. The dinners consisted of butcher's meat, potatoes, pies, puddings, bread, and cheese. About one third part of the bread used consisted of thin oat cake, common in Westmoreland and Cumberland. I drank no water, seldom wine, and no fermented liquor, except common table beer. The weight of the individual articles was taken at each meal separately, and entered into a journal, distinguishing fluids from solids. A very short time showed that the daily demand for food, both solid and fluid, was nearly uniform as to quantity, and that the supply might have been absolutely so without any inconvenience. But the diurnal evacuations were by no means so nearly uniform.

An aggregate of the articles of food consumed in fourteen days is given below, and the mean proportions for one day are also given, neglecting small fractions.

<i>Consump. in fourteen days</i>	<i>Do. in one day.</i>
OZ. AVOIRD.	OZ. AVOIRD.
Bread, . . . 163	12
Oat cake, . . . 79	6
Oatmeal, . . . 12	1
Butcher's meat, 54½	4
Potatoes, . . . 130	9
Pastry, . . . 55	4
Cheese, . . . 32	2
<hr/>	<hr/>
Total, 525½ solids.	38 solids.
Milk, 435½	31
Beer, 230	16½
Tea, 76	5½
<hr/>	<hr/>
Total, 741½ Fluids.	53 Fluids.

Thus it appears that the average daily consumption of solid and fluid articles was ninety-one ounces, or a little short of six pounds avoirdupois. The distribution of the aliments into solids and fluids, as above, is evidently to be understood in a popular sense, as it is well known that all the solids contain a greater or less portion of water, and all the fluids a greater or less portion of solid matter. In fact, water must be considered as the basis of all the fluids. During all this period a daily register was kept of the urinary secretion, and of the evacuation from the bowels. The total quantity of urine for the fourteen days was six hundred and eighty ounces, and the total quantity of fæces was sixty-eight ounces. The daily average was, urine, 48½ oz., fæces 5 oz.; a greater disproportion than was anticipated, being nearly in the relation of ten to one. They amount together to fifty-three ounces and a half, or three pounds and a half nearly; but the quantity of food taken daily was ninety-one ounces; there remains a balance of thirty-seven ounces and a half to be accounted for, which must have been spent by the insensible perspiration from the skin, and that from the lungs conjointly, on the supposition that the weight of the body remained stationary.

I have already observed that the daily evacuations were not so nearly uniform as was the quantity of food. The urinary secretion was greatest when tea was substituted for milk, and, on one day, was fifteen ounces above par. On another occasion, finding a greater defalcation than I had before observed, I could discover no cause for it, unless a teaspoonful or two of vine-

gar, taken at dinner, could account for it. To be satisfied of this, I took, some days after, in four equal portions, one ounce of vinegar during one day; and the effect was a greater diminution of urine on that day than on any other, during the two weeks; the quantity being fifteen ounces below the average, and four ounces less than on the former day when vinegar had been taken. There did not appear to be any increased effect in any other secretion as a compensation for this diminution.

In order to try the effects of different seasons, I resumed these investigations in the month of June, the same year, and continued them for one week successively. The results were what might have been anticipated nearly. A less consumption of solids and greater of fluids were observed. The evacuations were somewhat diminished, and the insensible perspiration was increased. The following were the results:

<i>Solids consumed in 7 days.</i>	<i>Fluids in do.</i>
236	391
<i>Per day, 34</i>	<i>56 = 90 Total,</i>

being four ounces per day less in solids and three ounces more in fluids, than in the former trial. The daily averages in the evacuations were, urine 42 oz., fæces 4½ oz., leaving a balance of nearly forty-four ounces for the daily loss by perspiration, being an excess of about six ounces above that in the former season, or one sixth more, owing, no doubt, to the higher temperature of the weather. Another trial of one week's continuance was made in September, in the same year. The results were so nearly alike to those in June, as to render an annunciation of them unnecessary. The daily consumption of food was ninety-three ounces and a half, and the perspiration one half of that quantity.

☞ A fact has come out in the report lately published by the Poor-law Commissioners, which is worthy of being contrasted with a statement in the above article. Mr. Dalton says that "his manner of living was exceedingly regular," and that his consumption of solid food alone averaged five hundred and twenty-five ounces a fortnight, or two hundred and sixty two ounces a week. This quantity was just sufficient in a man of quiet habits and philosophic pursuits, to keep him in uniform and good health. Now, the Poor-law Commissioners state that they have ascertained that a hundred and twenty-two ounces of food is the average weekly allowance of an English agricultural laborer,—less than half the quantity of solid food that is sufficient to keep a man of comparatively sedentary occupations in

"uniform and good health!" Not one ounce of the difference in the quantity of nourishing and substantial fluids drunk by the gentleman and the laborer being taken into account, though it is more than probable that the weekly consumption of three hundred and thirty-two ounces of milk and good beer by the former would have to be balanced (did we know the laborer's average) against about the odd thirty-two ounces of invigorating fluid on the part of the latter, the bulk of *his* perspiration being made up by water, or at best, sour "field ale." The facts before us need no comment.—*Lancet*.

Exhibition of Opium in the Form of Enema.

Dupnytren has recommended the exhibition of opium in the form of injections, in preference to the usual mode of giving it by the mouth. The two following cases exhibit striking proofs of the utility of this practice, and its great superiority over the common method:

CASE I.—J. B., aged thirty, by profession a surgeon, was admitted into Sir Patrick Dunn's hospital on the eighth of February last, in an extreme state of emaciation and debility; in fact, a complete skeleton: indeed he considerably resembled the living skeleton lately exhibited in France and in England. He had not the least fever; his digestive organs appeared quite healthy; his breathing natural; and he had no cough, nor did he complain of any pain in the head. To what, then, was the reduction of flesh and strength owing? Partly to the effects of disease, but chiefly to the abuse of those two powerful medicines, mercury and opium. His constitution became more and more impaired, and a cutaneous eruption, in every respect resembling the milder variety of rupia prominens, made its appearance, while an ulcer commencing inside the left nostril, completely destroyed the nasal cartilage, so that the tip of the nose had fallen in. From this account it would appear that some portion of the spongy bones had been also destroyed. One of the spots of the periostitis had evidently produced extensive exfoliation of the os frontis; but the part is now healed. He has no sore throat; his gums are sound, and his tongue perfectly clean and moist. He has no thirst, and his appetite is good; bowels quite regular. The few remaining spots of rupia, the arthritic swellings and pains, now become chronic; extreme debility and an utter want of sleep, except when under the influence of enormous doses of opium, form the catalogue of his present complaints. For the last

two years he has never had sleep at night, except when under the influence of an opiate. He was first induced to take this medicine in order to relieve his pains; but latterly, it is not pain, but the impossibility of sleeping, except when under its influence, that has forced him to use it constantly. *He has often taken two ounces of Batley's solution in a day!* Very large doses of opium act on his bowels as an aperient, and the use of this drug never produces headach, dulness, furred tongue, thirst, nausea, or the least disturbance of the circulating system. For a few nights after his admission into the hospital, he got two drachms of black drop every night; but it was not enough to procure any sleep, and he consequently entreated me to double the dose; but I refused, and ordered the following treatment:—Three drops of Fowler's arsenical solution three times a day; a nutritious, but mild, diet; some wine at dinner; sarsaparilla broth, one pint daily; a starch enema, with one scruple of black drop three times a day. The good effects of this treatment became soon apparent; his sleep gradually returned, and, in the course of a fortnight, was sounder and of longer duration than it had been for years. He daily gathered flesh and strength, and in the course of a month was so altered for the better, that, were it not for the depressed nose, no one could have recognised him to be the being whose misery, a month ago, had so strongly excited our commiseration. The arthritic affection has rapidly subsided, and, with returning strength, he is regaining the use of his limbs.

CASE II.—The following case exhibits the good effects of opiate injections in a manner not less striking than that just detailed.

A professional gentleman, of great abilities and strength of mind, about ten years ago was attacked with neuralgia of a very severe description. The disease, which was caused originally by a cold, pursued a most anomalous course, giving rise to amaurosis of one eye; ptosis and permanent strabismus of the affected eye. Contrary to the expectation of Sir Astley Cooper and Mr. Brodie, to whom he was introduced by his friend, the late Dr. Wollaston, the symptoms of cerebral disease made no further progress, but the neuralgic affection of one of his lower extremities became intolerable, occurring in paroxysms of extreme violence, and to be relieved only by frequent doses of opium. After the lapse of some years the neuralgia became complicated with pain and swelling of the knee joint, which still further added to his sufferings, and rendered

him a complete cripple. This joint is now permanently enlarged, and, within the last two years, the lower extremity of the femur seems to have formed an enormous exostosis of an equal growth all around its circumference, but not encroaching on the articular surface of the bone, which still enjoys the slightest possible degree of motion, although it cannot be moved far from its flexed position. The neuralgic pains, if such they were, have, within the last four years, been worse than ever. During the paroxysms he has frequently been forced to take a hundred grains of opium, much to his annoyance, for he found that it occasioned subsequent nausea and vomiting, stupor, and other unpleasant symptoms, while constant repetition of this drug had completely destroyed his appetite, and, what he most deplored, had sensibly impaired his memory and mental powers. At length he was advised to use it in the form of an injection. The alleviation produced by this change has been most astonishing. Half a drachm of laudanum thus used, when necessary, twice or three times a day, effectually alleviates his suffering, and does not produce any of the bad effects before enumerated. His appetite is now good, his spirits cheerful, and his powers of mind unimpaired.

NOTE.—The experience of the Editor enables him fully to corroborate the above observations of Dr. Graves. The idea entertained by many physicians, that if opium is to be employed in enemata, the quantity must be comparatively much larger than when prescribed to be taken by the mouth, is a most erroneous one. Half a drachm or a drachm, given by clyster, will, especially if the drug has been swallowed frequently, produce a much more powerful narcotic effect, than the same dose taken by the mouth.

Successful case of Transfusion of Blood. By
DR. SCHEEMANN, of Hanover.

The subject of this case was a stout, healthy woman, aged thirty, who had already had two children, and at each delivery, had suffered considerably from hæmorrhage, before the removal of the placenta. On the third delivery a violent hæmorrhage set in, about two hours after the birth of the child, the placenta being still retained; in spite of the efforts of the midwife to promote its expulsion by friction and pressure on the uterine region. She then attempted to extract it; but in vain. She therefore sent at once to Dr. S. On his arrival he found the patient in a faint, which had lasted for some time, and re-

spiration and circulation were scarcely perceptible. The abdomen seemed pretty much enlarged, but the hæmorrhage had ceased for the time. He immediately ordered her some wine and a teaspoonful of the tincture of cinnamon; and when she had come a little to herself, introduced his hand into the uterus and extracted the placenta, first removing the coagula, which had quite plugged up the entrance. The organ then contracted powerfully; which of course prevented the renewal of the hæmorrhage. The patient now got down more wine, and half a drachm of *secale cornutum*, the latter being thrice repeated. In consequence, she gradually recovered, so much so, that Dr. S. did not think it necessary to remain any longer, having been already some hours with her. Accordingly, he ordered her some laudanum and went away. Soon afterwards, however, the husband of the patient came to him with the intelligence that, on his wife's turning in the bed, the hæmorrhage had come on again with great violence; that when he left her she was speechless, and that he feared she would be no more before they returned. Dr. S. saw at once that the only chance of saving the poor woman was to have recourse to the transfusion of blood. Not having a proper apparatus for the purpose, he purchased a syringe with a long pipe, on his way to the patient's house, and brought two medical students with him as assistants. On their arrival they found her with every sign of approaching dissolution: the hæmorrhage had ceased, and the uterus was larger than when he had left her. He therefore again introduced his hand into it; removed the large coagula with which it was distended, and, by pressing for a few minutes, through its posterior wall, on the aorta, endeavored to determine the small quantity of blood that remained more to the heart and the brain. By this means, together with pressure on the uterus from without, the organ began to contract and resume its usual size and form. Leaving it to the midwife to attend to keeping it so, he next prepared for the operation of transfusion. The husband readily offered his arm, and, after some difficulties from the nature of the apparatus, about seven or eight ounces of blood were injected. The man then became so weak and faint that no more could be taken from him. In about half an hour after the operation, the woman began to come to; and, in three hours, with the assistance of wine and other restoratives, she was wonderfully recovered. The hæmorrhage did not again return; and, though she subsequently suffered greatly from

inflammation of the wounded vein, in consequence of which she had to undergo a severe salivation, she eventually regained her health and strength, a great paleness of countenance being the only visible memorial of the danger she had escaped.—*London Med. Gaz.*

NOTE.—From the small quantity of blood injected, is it not very problematical whether the recovery was not independent of the transfused?—*Editor.*

Observations on the employment of *Croton Oil* as an external irritant. By R. HUTCHINSON, M. D., Physician to the General Hospital, Nottingham.

The Croton oil has been frequently recommended as an external irritant, but as yet little used in this country. The true power and successful application of this medicine are not yet sufficiently substantiated, requiring a numerous collection of facts, to ascertain in which cases, and under what circumstances, it may be most advantageously applied. I am anxious to contribute my quota towards arriving at a satisfactory conclusion, having for a long period been in the habit of extensively employing it; and, in publishing the following observations and cases, I hope that some of the readers of the *Lancet* will assist in determining the real utility of a medicine so active and energetic. The combined experience of many can alone substantiate the true powers of a remedy which is, as yet, almost untried as an external irritant.

Six drops of Croton oil, when applied to a sound skin, and rubbed in, from a period of eight to twelve minutes, speedily produces a rubescence to a greater or less extent, depending upon the individual's susceptibility. This gradually increases, until a general, though moderate, tumefaction occurs, apparently affecting parts deeper seated than I have seen occur from the use of any other external irritant. This is succeeded, in a period varying from six to twelve hours, by numerous vesicles, some distinct, others confluent, differing in size and shape at first, containing merely a limpid serum, afterwards a distinct and consistent pus, and terminating in slight scabs. The redness produced is not of a vivid, but of a dull brick dust hue. These circumstances, though regular in their course, vary much in intensity, according to the parts upon which the oil is applied. Thus, on the abdomen, I have never been able to excite so active a rubescence as in other parts of the body. Over the muscular regions of the arms and

legs the effect is not so violent as where the bones are more superficially situated.

The most powerful effects are produced upon the face, scalp, larynx, and chest, according to the observations I have made, in the order now enumerated. When the croton oil is applied to the face and scalp, it is frequently succeeded by erysipelas; but I have never seen any destructive or suppurating process established wherever applied, nor erysipelas follow its use upon any part of the neck, abdomen, or extremities. In general its effects are certain when applied to any part of the body, with the exception of over the abdominal muscles; at least, I have never seen it fail of producing the sequela described, when applied upon any other part of the body. At the Hospital of La Pitié, in Paris, the external application of the oil is said to have been successfully employed in cases of inflammation of the larynx. No practitioner could place confidence in it alone, in active laryngeal inflammation; and my experience does not confirm the testimony in its favor when the inflammation is of a chronic nature; but the effect of any remedy must vary most considerably when employed under circumstances so different as upon patients placed in a crowded Parisian hospital, previously ill-nourished and debilitated, and upon those in a healthy and actively employed English country town. I have tried it perseveringly upon four cases of chronic laryngitis. The following may be given as a fair specimen of the whole:

CASE I.—*Chronic Laryngitis.*—Ann Cooling, ætat. 26, a strong and healthy young woman, was admitted into the general hospital, Nottingham, Oct. 16, 1832. For ten months she had partially lost her voice, varying from a complete to a lesser degree of aphonia. The general health good; catamenia regular. She speaks now in a whisper; has no power of elevating the voice beyond that; has slight pains upon pressure upon the thyroid cartilage, accompanied with a sensible crepitating noise when pressed backward and moved from side to side.

I have always seen this symptom present in every case of chronic laryngitis, but am not aware of its being mentioned by medical writers. Before coming into the hospital she had been purged, blistered over the larynx, and had an irritation kept up by the tartar emetic plaster.

OCTOBER 20.—Ordered three drops of croton oil to be rubbed over the laryngeal region, with medicine to regulate the state of the bowels.

22.—Eruption has been extensive and gone through its regular course; voice improved.

From this period to the 8th November the croton oil was applied four times : on this latter day the voice is but slightly improved from what it was on the day of admission, and six leeches were ordered to be applied twice a week over the larynx. These were continued till the first of January, 1833, when she was discharged from the hospital, her voice perfectly natural, and the crepitation upon pressure entirely removed. In this case it was satisfactory to observe a sensible increase of voice upon every application of the croton oil, and its improvement during the continuance of the irruptions ; but, upon the cessation of irritation, the voice became again as imperfect as it was at first, showing that the croton oil had the power of relieving, though not of curing, this patient. The same result was observed in the other three cases.

CASE II.—*Neuralgia*.—Miss Brown, Basford, ætat. 20, of a good constitution, healthy and strong-looking, has suffered for the last three years a most obstinate neuralgia of the supra-orbitary nerves. All medicines have been tried, but not perseveringly, without relief. On the second of March, 1832, four drops of croton oil were rubbed over the right supra-orbitary region. On the third, much swelling and inflammation had occurred, extending over the forehead, but not upon the scalp; the vesicles here were exceedingly numerous; the swelling and inflammation soon subsided on the application of the liq. plumb. subacet. dil.

5th. The neuralgic pain is relieved. Two drops of croton oil to be applied to the left side.

7th. The inflammation and swelling not so extensive as it has been on the right; eruption gone through its course; the neuralgic pains continued less violent for a few days; but, by the 20th, became as bad as ever; since which period, to the present time, she has taken regularly two drachms of carbonate of iron three times a day, and the dreadful sufferings of this patient are now entirely relieved. She is continuing the iron, fearful of a relapse.

In this case the croton oil is observed to have been ineffectual in removing the neuralgia, though, for a short period, it much relieved it.

CASE III.—*Paralysis of the Face*.—Oct. 1. Mr. James, ætat. 25, portrait painter, has had, for the last five months, paralysis of the left side of the face; that side of the mouth drawn down, the eyelids always open, and sensation perfect; no pain, no swelling or tenderness over or in the parotid gland; health good; bowels regular; pulse natural. Has been bled, purged, and blis-

tered, without relief. Ordered to keep the bowels open, and rub, for ten minutes, three drops of croton oil over the parotid region.

2. Eruption extensive; tumefaction slight.

4. Can partially close the eye; has some power over the other muscles of the face.

6. The same as last report: Repeat the applications.

8. Can completely close the eye; mouth straight; appears nearly well.

12. Quite well. Can use the muscles of both sides of the face equally; has continued well to the present period.

This is a most satisfactory case, apparently yielding speedily to the employment of croton, when other remedies had failed.

CASE IV.—*Loss of the Power of the Arm*.—

John Williams, ætat. 21, Oct. 16, 1832, got drunk three weeks ago, and lay for many hours asleep, upon the wet ground, with his arm, he supposes, doubled under him; since which period he had complete loss of sensation and motion of the hand and wrist, without pains. His health is good; no headache; bowels and pulse regular. Ordered a purge; to rub four drops of croton oil for ten minutes along the fore arm, over the course of the radial and ulnar nerves.

18. Slight improvement. Continued ol. cro.

25. The same as on the sixteenth, having neglected the application. Four drops of the oil to be applied.

Nov. 1. Much improvement. Can just raise the hand to a line with the wrist.

8. He has applied mustard to the arm. Is desired to use only the remedy prescribed.

15. Improving. Continue ol. cro.

22. So much better, can move the finger and hand, though not perfectly.

29. Has almost perfect use of the wrist joint and fingers.

Dec. 6. Perfect power. Quite well.

In this case it was most satisfactory to observe the improvement varying with the existence of external irritation. Whenever the application was neglected the hand partially relapsed into its former immobility; and, by its continuance, a perfect cure was effected.

The circumstances of these few cases will, I hope, induce other practitioners to confirm or refute their results—to establish, if the successful cases were so fortuitously, or if, as I believe to be the fact, the croton oil is a remedy more certain in its effects than any other yet employed, and that it produces a stimulating and irritating action upon parts more deeply seated, than is

effected by blistering, tartar emetic, or any other yet known external irritation.—*Lancet*.

Nottingham, March 5, 1833.

The following interesting observations, by Dr. Graves, are taken from the DUBLIN MEDICAL JOURNAL, for May, 1833.

Hysterical Determination to the Head.—The utility of both nitrate of silver and spirit of turpentine in such cases, was suggested to me by the good effects these medicines are found to produce in epilepsy, particularly when it occurs in persons of a nervous and delicate habit; and, since I have employed them in hysterical determination to the head, I have been able to overcome these and similar affections with much greater facility than formerly. Of these, as has been already observed, the spirit of turpentine is best suited to the violence of the disorder, and may be given in doses of one or two drachms, to be repeated according to its effects. The best vehicle is cold water. Some will bear and derive advantage from two or three doses of this medicine, in the experiencing from its use a diminution of headach and a removal of flatulence, together with a moderate action of the bowels and kidneys. In some cases, as occurs also occasionally, in the treatment of epilepsy by this medicine, it cannot be persevered in, in consequence of the violent dysuria and hæmaturia it occasions: slighter degrees of these affections should not, however, prevent our continuing it. When the paroxysm has abated, or when the spirit of turpentine has failed, the greatest benefit may be derived from the nitrate of silver continued from five to six days at a time, in doses of half a grain, four times, or even six times, a day. When the bowels are constipated there is no better combination than nitrate of silver with minute doses of compound colocyath pill; a formula, I believe, first recommended in dyspepsia by Dr. James Johnson, of London, and which I have found invaluable, not merely in headachs of hysterical young women, but in those of men, particularly the habitual stomach headach, to which delicate and literary men are so subject.

Dry Cupping.—The suction should be powerful, and should be sufficient to fix the cup for ten or fifteen minutes. On a young lady in Grafton street, in whose case I first tried this method, its good effects were most striking. She had been lying for twenty-four hours, with her face somewhat swollen, her eyes open and unmeaning, unable to speak, and frequently agi-

tated by violent hysterical convulsions. After the cups had been some time on she recovered her consciousness and was able to speak. This result was the more remarkable, as she had, a year before, labored under a similar but less severe attack, for which she was treated by two of the most eminent practitioners in Dublin, by means of shaving her head, leeches, ice, &c.; a mode of treatment which left her in so weakened and nervous a state, that her removal to the country became necessary, and she did not recover her usual strength for several months. Mr. Baker has given me the particulars of a very curious case:—A lady of rank, living in the vicinity of Dublin, was occasionally attacked by violent determination of blood to the head, and each of these paroxysms was sure to induce, before it ended, a violent propensity to suicide, which she very nearly succeeded in gratifying on more than one occasion. This propensity and the cerebral congestion which caused it, were afterwards removed, or rather prevented, by the timely application of dry cupping as soon as the well known premonitory symptoms of the paroxysm made their appearance.

Cyanuret of Potassium in Neuralgia.—This new remedy is employed in the form of solution in water, (four grains to the ounce,) and applied to the pained part in severe neuralgias, migraines, and obstinate nervous headach. A man applied to La Charité for tic douloureux, which had tormented him for four months. He was cured in eight hours; but the pain returned a week afterwards, and again was subdued. He still feels the remains of his former sufferings, but is free from those dreadful paroxysms, the agony of which defied language to express. In another case, under the care of MM. Reccamier and Trosscau, the patient had been affected fifteen years. Every remedy, even the division of the nerve, had been ineffectually tried. The solution was applied, and, after its application for ten days, there was decided amendment, the frequency and violence of the paroxysms being much relieved.—*Bulletin de Therapeutique*.

Velpeau's new work, entitled *Nouveaux Elements de Medicine Operatione*, has been received, and is in course of translation. If the numerous engravings which it contains can be got ready in time, we shall commence its republication on the termination of *Bell on the Nervous System*.

REGISTER AND LIBRARY

OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 10, 1833.

No. 3.

MEDICAL SCHOOLS.

As the present season is the one when the minds of medical students are directed to the examination of the different medical institutions of the country, with the view of selecting one for pursuing their professional studies, we propose, in our editorial article of this week, to furnish a list of a few of the more prominent, their terms for commencing lectures, their professors, and the rates of fees, &c. &c.

Connected, as we are, with one of these institutions, we shall avoid any attempt to influence the decisions of those to whom we address ourselves. Yet, as there is no event in the history of a medical man's life which exercises so important an influence on his future prosperity as the selection of the school in which he is to pursue his studies, we would wish most earnestly to press on the attention of medical pupils the necessity of deliberation, and the most minute examination of the merits of the different medical institutions in the United States, before they form their decision. If we are asked, which is the best medical school? we answer, without hesitation, the one in which the professors possess the highest talents and acquirements, and who are the most zealous and devoted to the instruction of their pupils. We are aware that different opinions have been entertained; and we recollect of having once been perfectly astounded by hearing a distinguished professor declare, that the election of men of *mediocre* talent to fill the chairs which might become vacant in the institution with which he was connected, would in no degree deteriorate from its reputation. His mode of impressing himself was very forcible—"If, sir, we were to elect conk

PROFESSORS to FILL THE VACANT CHAIRS in — it would not diminish the number of pupils; she has gained a reputation, and this will fill her theatre with students." Although the gentleman who made this declaration, is a person of acknowledged talent, still it must be admitted that, in this instance, he exercised a most erroneous judgment. In the present era of the world, and more especially in this country, mankind estimate things by their real, not by their nominal value. The mania for Queen Anne's farthing is at an end. If the fact be admitted—and we cannot believe that a single individual will be found to deny it—that the superiority of physicians must be measured by the amount of their medical acquisitions; and if it be also granted that a man of talent and medical information, is better qualified to convey instruction than one who is deficient in those requisites, then it must necessarily follow that the student will derive benefit from an attendance on lectures just in proportion to the eminence of the qualifications of those who deliver them. Again, the chances of success in the profession are to be estimated by the qualifications of the candidates for public favor, and this we believe will not be questioned, the single object the student ought to bear in view, in selecting his medical school, is to select the one in which he will possess the best opportunities for acquiring a knowledge of medical science.

The city of Philadelphia has long been celebrated for the facilities it affords to the medical students who flock to it for the acquisition of medical knowledge. Its hospital and almshouses are large institutions, and, being filled with in

teresting cases, and attended by distinguished physicians and surgeons, who are ever ready to communicate information to the attending student, they afford to the pupils who attend the lectures delivered in that city, the best opportunities for clinical study. The supply of subjects for dissection is abundant even to profusion, and the board excellent, and to be obtained on very moderate terms, the price being from two to three dollars per week. The city is remarkably healthy, the society excellent, and for all the *agremens* of life, a more delightful residence cannot be selected.

There are two medical schools established in Philadelphia—the old and the new one. The former is the University of Pennsylvania, which obtained the highest celebrity as the field in which Rush, Wistar, Barton, and Physick labored; the latter, Jefferson Medical College, an institution of later date, yet one which is now in a most flourishing condition.

The following are the professional arrangements of the OLD SCHOOL:

Emeritus Professor of Surgery and Anatomy.—Philip S. Physick, M. D.*

Anatomy.—W. E. Horner, M. D.

Institutes and Practice of Medicine and Clinical Medicine.—Nathaniel Chapman, M. D., and Samuel Jackson, M. D.

Materia Medica and Pharmacy.—John Redman Coxe, M. D.

Chemistry.—Robert Hare, M. D.

Surgery.—William Gibson, M. D.

Obstetrics and the Diseases of Women and Children.—Thomas C. James, M. D., and William P. Dewees, M. D.

* We have frequently been asked, What is the meaning of *Emeritus Professor*? In answer to this query, we would state, that it is a mere honorary title bestowed on the distinguished gentleman who holds it, in consideration of *past* services. That Dr. Physick, *de facto*, ceased to be a professor in the University of Pennsylvania on his retirement from the duties of his professorship in the Spring of 1831, he having not delivered a single lecture since that period, nor performed any of the duties of the professional office, with the exception of affixing his signature to the diplomas granted to the graduates of the school. We have no hesitation in furnishing our readers with this explanation, as we cannot believe that the highly respectable trustees of the University of Pennsylvania, in advertising Dr. Physick's name in the list of the present professors of the school, can have any intention to lead students to believe, that, in entering as pupils to the University, they are to obtain the advantages to be derived from the instructions of Dr. Physick.

The dissecting rooms in this institution are under the direction of Dr. Hopkinson, the Demonstrator of Anatomy. They open on the commencement of the lectures, in November.

The fee for attendance on the lectures of the University is \$ 20 for each course. The fee for the dissecting rooms is \$ 10. The fee for graduation is \$ 40, and \$ 5 to the Janitor; and there is a matriculation fee of \$ 5. The expenses of graduation in this school are, therefore, as follows:

Two full courses of lectures, at twenty dollars each, - - - - -	\$ 240
Graduation, Matriculation, and Janitor's fees, - - - - -	50
	<hr/>
	\$ 290

JEFFERSON MEDICAL COLLEGE.

PROFESSORS.

Anatomy.—Granville Sharp Pattison, M. D.

Surgery.—George M'Clellan, M. D.

Theory and Practice of Physic.—John Revere, M. D.

Materia Medica and Pharmacy.—Samuel Colhoun, M. D.

Chemistry.—Jacob Green, M. D.

Midwifery and Diseases of Women and Children.—Samuel M'Clellan, M. D.

The dissecting rooms in this school are placed under the direction and superintendence of the Professor of Anatomy, and with the view of allowing those students, who may be desirous to dissect before the commencement of the lectures, they will in future be opened for dissection on the first Monday of October in each year. For this privilege, no additional fee is required. The fee for the lectures in this institution is \$ 15 for each course. The fee for the dissecting room, \$ 10. The fee for the diploma is \$ 15, and \$ 5 to the Janitor.* There is no matriculation fee imposed on the pupil attending Jefferson Medical College.

Expenses of Graduation in Jefferson Medical College.

Two full courses at fifteen dollars each, - - - - -	\$ 180
Graduation and Janitor's fees, - - - - -	20
	<hr/>
	\$ 200

* As the fees are much lower in Jefferson College than in the University of Pennsylvania, it may be supposed that they have been reduced by the Faculty with the view of underselling the other school. This, however, is not the fact. The fees to be paid for attendance on the lectures are fixed by the Legislature of the State, and, by their charter, the professors have no power to alter them.

There is connected with Jefferson Medical College a medical and surgical dispensary, and a dispensary for the treatment of the diseases of the eye and ear, which is conducted on the plan which has been pursued with so much advantage in communicating a practical knowledge of their profession to medical students in Germany; the senior students having entrusted to them, under the direction of the professors, the treatment of the causes. No fee is charged the pupils of the Jefferson Medical School for attendance on the dispensaries of the institution.

The lectures in both the OLD and the NEW MEDICAL SCHOOLS of Philadelphia commence on the same day, Monday, the 4th of November, and the three first days of the session are occupied by the delivery of the introductory lectures. In both schools, the session of lectures occupies four months. As it cannot be supposed that we are unprejudiced in our judgment in regard to the comparative merits of these two institutions, we sedulously avoid making a single observation which could subject us to the suspicion of a desire to influence the decision of those students who visit Philadelphia, in giving the one a preference over the other. We feel confident that the institution which possesses the highest talent, and which is most distinguished for the zeal and industry of its professors, must ultimately be the successful one; and we could therefore earnestly press on the members of both, to dismiss from their minds all unworthy jealousies, and to be only emulous that the school with which they are individually connected should be distinguished above all others by the excellence and superiority of the medical education which it furnishes.

There is, however, one advice which we may certainly be permitted to offer to the students who come to Philadelphia, as it is one, in the wisdom of which the professors of both schools must concur. It is, that as the lectures of both institutions are open without the presentation of tickets for the first two weeks of the course, that pupils ought, on no account, to enter to the lectures of either, until they shall have availed themselves, for some time, of the opportunity furnished them of listening to the lectures delivered by the professors of both. After having done so for a week or ten days, they will themselves be able to form an estimate of the comparative merits of the two institutions, and, having formed their estimates, they can decide accordingly.

UNIVERSITY OF MARYLAND.

Considerable changes have taken place in the professional arrangement of the UNIVERSITY OF

MARYLAND since last session. The following is the announcement of lectures as published by the Faculty for the ensuing one:

THE UNIVERSITY OF MARYLAND.—The lectures in the medical department of this institution will commence on the last Monday of October, and continue until the first of March.

NATHANIEL POTTER, M. D., Pathology and the practice of Medicine.

RICHARD WILLMOT HALL, M. D., Obstetrics and the diseases of women and children.

NATHAN R. SMITH, M. D., Surgery.

JULIUS J. DUCATEL, M. D., Chemistry and Pharmacy.

E. GEDDINGS, M. D. Anatomy and Physiology.

ROBLEY DUNGLISON, M. D., Materia Medica, Therapeutics, Hygiene and Medical Jurisprudence.

Clinical Lectures will be delivered at the Baltimore Infirmary, by the Professors of the Practice of Medicine and Surgery.

Candidates for the degree of Doctor of Medicine are required to attend two full courses of the lectures of each Professor in this institution, or, having already attended one full course in some other respectable school, where the same branches are taught, or a second in this. Those students, however, who have already attended a course of lectures in the University of Maryland, will be entitled to the privilege of graduation under the former regulations—the matriculation fee has been abolished. E. GEDDINGS, M. D., Dean.

The city of Baltimore, in which the University of Maryland is situated, is a most delightful residence, and board, we believe, can be obtained there on the same terms as in Philadelphia. The supply of subjects is ample; and the Baltimore Infirmary, which is open to the pupils attending the medical lectures, although a small institution, is still sufficiently large for all the purposes of clinical instruction. The dissecting department of this school is placed under the superintendence of Dr. Lyon, the Demonstrator. The fees for attendance on the lectures of the University of Maryland are the same as those of the University of Pennsylvania, being \$ 20 for each course, and \$ 10 for the dissecting rooms. The fee for the diploma is, however, only \$ 20; and the fee for matriculation, it will be observed, has, by a late regulation, been abolished.

Expenses of Graduation in the University of Maryland.

Two full courses at twenty dollars each,	\$ 240
Graduation and Janitor's fees,	25

NEW YORK.

There are two medical schools in the State of New York, both of which are connected with the State University. The one is situated in the city of New York, and the other at Fairfield, in the western district. The lectures in the school which is situated in the city of New York, commence on the first Monday of November, and are delivered by the following professors :

- Anatomy*.—John Augustine Smith, M. D.
- Theory and Practice of Physic*.—Joseph Smith, M. D.
- Surgery*.—Alexander H. Stevens, M. D.
- Midwifery and Diseases of Women and Children*.—Edward Delafield, M. D.
- Materia Medica and Medical Jurisprudence*.—John B. Beck, M. D.
- Chemistry*.—John Torry, M. D.
- Operative Surgery*.—Valentine Mott, M. D.
- Demonstrator of Anatomy*.—Alfred Post, M. D.

The course occupies four months. It will be remarked, that there is a peculiarity in the professional arrangements of this institution, there being two separate professorships of surgery—the old held by Dr. Stevens, the other by Dr. Mott. We must confess, we do not see the advantage of this arrangement. One lecture on surgery daily is surely sufficient. The fees for the entire course in New York is \$ 110. The expenses of graduation are, therefore, as follows :

Two full courses,	-	-	-	\$ 220
Matriculation, Graduation, and Janitor's fee,	-	-	-	25
				\$ 245

There is an excellent hospital in New York, to which students are admitted on the payment of a moderate fee. The supply of subjects is not so abundant as it is in Philadelphia and Baltimore, and consequently the price is considerably higher.

The lectures in the medical school of the western district commence at Fairfield on the first Tuesday of October. The following gentlemen form the Medical Faculty :

- Midwifery*.—Dr. Willoughby.
- Chemistry and Materia Medica*.—Dr. Hodley.
- Anatomy*.—Dr. McNaughton.
- Practice of Physic and Medical Jurisprudence*.—Dr. T. Romeyn Beck.
- Surgery*.—Dr. De la Mater.

The course of lectures in this institution occupies fourteen weeks. All the lectures do not, however, go on at the same time ; for, as several

of the distinguished professors reside at a distance from Fairfield, and as it would be exceedingly inconvenient for them to be absent from their private practice for the whole term, they merely remain at the school for seven weeks ; and, by delivering two lectures every day, are enabled to finish their courses in one-half the time they would otherwise occupy.

In the New England States there are a number of highly respectable medical institutions, but our limits will not allow us to do more than enumerate them, and furnish a list of their professors.

MEDICAL SCHOOL OF MASS., BOSTON.

- Anatomy and Surgery*.—Dr. Warren.
- Chemistry*.—Dr. Webster.
- Materia Medica*.—Dr. Bigelow.
- Midwifery and Medical Jurisprudence*.—Dr. Channing.
- Theory and Practice of Physic*.—Dr. Jackson and Dr. Ware.

The lectures commence on the third Wednesday of October, and are continued for four months.

There are two medical schools west of the Alleghany mountains ; one of which is situated in Lexington, Kentucky, and the other in the city of Cincinnati, Ohio.

TRANSYLVANIA UNIVERSITY, LEXINGTON.

- Anatomy and Surgery*.—Dr. Dudley.
- Institutes of Medicine and Clinical Practice*.—Dr. Caldwell.
- Theory and Practice of Physic*.—Dr. Cook.
- Midwifery, &c. &c.*—Dr. Richardson.
- Materia Medica and Medical Botany*.—Dr. Short.
- Chemistry and Pharmacy*.—Dr. Yondell.

The expenses of a course of lectures in the medical school of the University of Transylvania is one hundred and ten dollars. Graduation twenty dollars.

Expenses of Graduation.

Two full courses,	-	-	-	\$ 220
Graduation and Janitor's fee,	-	-	-	25
				\$ 245

MEDICAL COLLEGE OF OHIO, CINCINNATI.

- Anatomy*.—Dr. Cobb.
- Chemistry and Pharmacy*.—Dr. Mitchell.
- Materia Medica*.—Dr. Pierson.
- Obstetrics and Diseases of Women and Children*.—Dr. Morehead.

Theory and Practice of Physic.—Dr. Eberle.

Surgery.—Vacant.

Dr. Gross, Demonstrator.

The expenses of attendance on the course is ninety-three dollars.

Expenses of Graduation.

Two full courses, - - - \$ 180

Graduation and Janitor's fee, - - - 25

\$ 211

**COLUMBIA COLLEGE, WASHINGTON,
DISTRICT OF COLUMBIA.**

There are the following medical institutions in the southern States :

The medical lectures in this institution commence annually on the first Monday in November, and continue till the last of February. During this period, lectures are delivered daily, and full courses are given on the various branches of medicine, by

THOMAS SEWALL, M. D., Professor of Anatomy and Physiology.

THOMAS HENDERSON, M. D., Professor of Theory and Practice of Medicine and Clinical Medicine.

N. W. WORTHINGTON, M. D., Professor of Materia Medica and Medical Botany.

FREDERICK MAY, M. D., Professor of Obstetrics.

THOMAS P. JONES, M. D., Professor of Chemistry.

JAMES C. HALL, M. D., Professor of Surgery.

Each student, on entering the school, is required to enrol his name with the Dean of the Faculty, and to pay a matriculating fee of five dollars.

The fee for the lectures on each branch is fifteen dollars, being ninety dollars for the full course.

For the benefit of students in indigent circumstances, the school is open to one from each State and Territory, to attend the lectures free of expense, by paying, on entering the school, the usual matriculating fee. The Senators and Delegates of Congress are authorized to select one such student from each of their respective States and Territories, who shall be admitted to gratuitous attendance on the lectures, by exhibiting a certificate of such selection to the Dean of the Faculty.

All persons who have attended two full courses of lectures in this school, are entitled to attend succeeding courses free of expense.

The requisites for graduation are, that the candidate shall have studied three years under the

direction of some regular physician. He shall have attended the lectures of each professor two full courses, or one full course in this school, and one in some other respectable institution. He shall have entered his name with the Dean, of the Faculty, as a candidate for graduation, and delivered to him an inaugural dissertation on some medical subject, thirty days before the close of the session.

The degrees are conferred by the authority of the Columbian College, incorporated by an act of the Congress of the United States.

The Medical College, recently erected by the Faculty, is a large and commodious building, situated about equidistant from the Capitol and President's House.

Good board can be obtained for three dollars per week.

THOMAS SEWALL, M. D.,

Dean of the Faculty.

**UNIVERSITY OF VIRGINIA, CHAR-
LOTTESVILLE.**

There are only two medical professors in this institution.

Anatomy.—Dr. Johnston.

Medicine.—Vacant.

**MEDICAL COLLEGE OF SOUTH CAR-
OLINA, CHARLESTON.**

As there are four of the professorships in this institution at present vacant, we cannot furnish the list of professors in the present number, but as soon as they are filled up we shall publish the names of the Medical Faculty.

The present list, we are aware, is very defective, but we can assure our readers we have taken at great deal of pains to render it more complete. The only source from which we could obtain information as to the members of the different Medical faculties, has been from the newspapers, and as some of them confine their advertisements to the newspapers of their own neighborhoods, which papers we have been unable to procure with all our exertions, we have been foiled in giving the information we were desirous to furnish.

This has been the case with the following which are well known as most respectable medical schools :

YALE COLLEGE, New Haven.

DARTMOUTH COLLEGE.

NEW HAMPSHIRE MEDICAL SCHOOL, New Burlington.

BOWDOIN COLLEGE, Maine.

We shall have much pleasure if the Deans of these, or any other medical schools, will take

the trouble to send us a newspaper, with their advertisement, to publish the names of the members of their several Faculties.

Standing before the public as we do, not only in the character of the journalist, but likewise in that of the professor, we have, from the fear of our motive being misunderstood, avoided making any critical observations on the systems pursued in the different institutions we have noticed, or of attempting to furnish an estimate of their comparative merits. If we had not been prevented, from the delicate position in which we are placed, from doing so, we could have given greater interest to the present paper; as it is, it can only be considered as an advertisement, furnishing to medical students of the United States and Canada, a list of medical schools in which they may prosecute their studies.

We are happy to state, that we are now in receipt of some of our foreign journals. The following have been received by the late arrivals.

ENGLISH.

Lancet, the Nos. from January.
Medical Gazette, do.
Medical and Surgical Journal, do.
Medico Chirurgical Review, do.
Edinburgh Medical and Surgical Journal, do.

FRENCH.

Archives Générales de Médecine, &c., Nos. from January.
Revue Médicale, do.
La Lancette Française Gazette des Hôpitaux, &c., &c., do.
Le Nouvelliste Médical, do.
Gazette Médicale de Paris, do.
Revue Encyclopédique, do.
Journal Universel et Hebdomadaire, do.
Bulletin Général de Thérapeutique Médicale et Chirurgicale, do.
Journal de la Société des Sciences Physiques, Chimeques, &c., do.

We shall continue to receive the above journals, and several others, by the Liverpool and Harve packets, which sail weekly, and shall therefore have no difficulty in keeping the profession informed of every thing which is of interest in the profession.

Cholera.—We learn by the late arrivals from Europe, that the cholera had reappeared in both London and Paris. The cases were, however, up to the last dates, not numerous, in either the English or French capitals.

University of Maryland.—In our last number we stated that it was currently reported that Dr. Dunglison, of the University of Virginia, was about to leave that institution, and occupy the Chair of Materia Medica in the University of Maryland. From a letter which has lately been circulated by the Medical Faculty of the Maryland school, this report is confirmed. Drs. M'Dowell and Baker having retired, Professor Dunglison has been unanimously elected by the Trustees to the Chair of MATERIA MEDICA.

We observe, with pleasure, that, by a resolution of the trustees, a very important change has taken place in the requirements for graduation in this University. Formerly a student was admitted to examination on producing certificates of having attended *only one* course of lectures on anatomy, surgery, practice and institutes of medicine, materia medica, chemistry, and midwifery, provided these single courses were attended during two *separate sessions*. By the new regulations the requirements for graduation are placed on the same standard as that adopted by the principal medical institutions of the United States; viz., That no student can graduate who has not attended two complete courses of anatomy, surgery, practice of physic, materia medica, chemistry, and midwifery. This regulation will unquestionably add considerably to the expenses required to be incurred by the future graduates of the Maryland school; but every intelligent physician will admit that two full courses in all the departments, ought to be the minimum requirement.

Mercurial frictions in Erysipelas.—The last number of the *Lancette Française* contains a communication from a naval surgeon, M. Marloy, respecting the eminent success which has attended his treatment of four cases of erysipelas, by mercurial frictions; the method proposed some time since by M. Ricord, and daily practised by this surgeon, with the most gratifying effects, at the *Hospital des Veneriens*.—*Lancet*.

Blisters in Erysipelas.—In an excellent article on this subject in the *Bulletin Général de Thérapeutique*, M. Rigaud, late interne at the Hospital St. Louis, advances a considerable number of facts, which prove the efficacy of blisters in phlegmonous erysipelas. The application should be made to the entire surface affected. Relief is usually obtained in twenty-four hours.—*Ib*.

Cause of the variations of the obstetrical action of the Ergot of Rye. By MM. BOETTCHER and KLUGE.

The obstetrical properties of the ergot are even still so much controverted, that all the observations which can fix the opinions of practitioners as to the degree of its efficacy ought to be collected. We here present some new facts, which will tend to illustrate this point of therapeutics.

M. Boettcher, apothecary at Menselwitz, in the Duchy of Allenburgh, having thought that the diversity of the action of this medicine might depend on the periods at which it was collected, got in a certain quantity of it *before* and *after* the harvest, so that in the first case he took away the grains of the ear while still in the ground, whilst, in the second, he gathered them in the threshing floor, where the rye was thrashed. He directed the separate products of these two crops to the Minister of Public Instruction, at Berlin, who remitted them to Dr. Kluge, head physician to the Hospice de la Maternité. The medicine was administered to fifteen women only, the quantity not being large enough to allow it to be given to more. That the ergot might not produce any bad effect in the mother or child, Dr. Kluge took care not to administer it until the neck of the uterus was beginning to dilate, that the pelvis should be well formed, and that the child should be placed in a favorable condition, the only circumstances under which we can obtain favorable results from the use of this medicine.

The results of his comparative experiments.

1. The action of the ergot collected before the harvest was very energetic, while there was no activity in that collected after the harvest.

5. In several cases the use of the first renders unnecessary the employment of the forceps, particularly when the insufficiency of strength results from real atony, or a spasmodic contraction of the neck.

3. The ergot of rye collected before the harvest possesses the property of preventing uterine hæmorrhage; and, if the application of the forceps was necessary in certain cases, where the pains had entirely ceased, this medicine may be opposed with advantage to the loss of blood which sometimes comes on at this time in abundance.

4. The dose is from thirty to sixty grains, administered in ten grains at a time, every ten minutes.

The experiments of Dr. Kluge have thus con-

firmed the conjectures of M. Boettcher, and may explain the diversity of opinions which exists with respect to the obstetrical action of the ergot of rye. The manner of preserving it also exercises considerable influence on its efficacy. We know that Dr. Ryan, of London, has ascertained that when this medicine is exposed to the air, it loses all its qualities, whilst it may continue very active two years after its collection, if care be taken to keep it in bottles hermetically sealed. —*London Medical and Surgical Journal.*

Treatment of Inflammation of the Lungs by large doses of Tartarized Antimony.

The following is a resumé of the experience of Dr. Munaret on this subject, taken from the *Gazette Medicale*, wherein the details are published.

Number of cases of acute inflammation of the respiratory organs, treated between the 28th of July, 1831, and the 15th of January, 1833, thirty-seven: viz. pleurisies and pleuro pneumonics, 22; pneumonias, 12; which is about the rate of one case for every fourteen days.

SEASONS.—Spring, 6 cases; Summer, 8; Autumn, 3; Winter, 20.

SEXES.—Women, 17; Men, 20.

AGES.—Among the females, between ten and twenty, 2; between twenty and thirty, 6; between thirty and forty, 4; between forty and fifty, 2; between fifty and sixty, 1; between sixty and seventy, 2.

Among the males, between ten and twenty, 6; between twenty and thirty, 3; between thirty and forty, 4; between forty and fifty, 6; between sixty and seventy, 1.

RESULTS.—Recovered, 34; died, 3, viz. a blind idiotic girl, and a paralytic woman, affected for a long time with organic disease of the lungs; a woman who was doing well, when some other medicine was substituted for the tartar emetic, unknown to Dr. Munaret.

DESCRIPTION OF THE METHOD.—In most patients who are of sanguineous temperament, the practice commenced with a bleeding at the arm, repeated according to circumstances. In the more aged and feeble, the application of leeches to the chest was preferred. The *Rasorien* potion was administered thus:

No. 1. Distilled water, \mathfrak{z} v.; tartarized antimony, gr. v.; laudanum, gtt. v.

No. 2. Distilled water, \mathfrak{z} v.; tartarized antimony, gr. viij.; laudanum, gtt. viij.

No. 3. Distilled water, \mathfrak{z} v.; tartarized antimony, gr. xij.; laudanum, gtt. xvj.

A table spoonful every two or three hours ; cold water in abundance during the intervals.

As the disease declines, blisters, squills, &c.

PROGRESS OF THE DISEASE.—Eleven days the mean duration. Diaphoresis is the constant indication of the medicine acting favorably ; vomiting alone, or accompanied by purging, fourteen times in thirty seven : viz. in eleven women and three men. A few drops of laudanum added to the potion overcomes this effect. At other times, and indeed more frequently, purging takes place without vomiting, and without aggravating the principal affection.

DOSES OF ANTIMONY.—From five to sixty grains and upwards, in three days ; mean quantity during the treatment, sixteen to twenty grains.

PRECAUTIONS.—Patient and those about him to be made acquainted with the probable effect of the medicine ; otherwise it is apt to be discontinued in the absence of the practitioner.

INFERENCE.—Tartar emetic, administered in large doses, and judiciously continued, with antiphlogistics and derivatives, is, to acute inflammations of the chest, which are not complicated, what quina is to ague.—*London Medical Gazette.*

The importance of medico-legal investigation becoming every day more apparent, we give the history of an interesting case, where, after repeated failures by other chemists, M. Orfila succeeded in detecting the presence of arsenic. The case is fully detailed in the *Annales d'Hygiene Publique et de Medicine Legale*.

In the month of July last, X., a locksmith in the village of G., went to spend the day with his brother and sister-in-law, Moreau. There was some talk about certain new flour that had been received by the family, and X. expressed a wish to see it. It was shown to him. He took up a handful of it, and, after holding it and examining it for a few minutes, threw it back into the bin, observing that he thought it better than his own. Two days after, the flour was used in baking, and thirteen persons, including M. and Madame Moreau and their son, ate of the bread. They were all seized with violent colic and frequent vomitings. The bread was suspected to be the source of the mischief, and, on the second of August, experiments were instituted by the practitioners of the village, with a view to detect the poison. A loaf, weighing from thirteen to fourteen pounds, was taken ; it had been

baked three or four days before. Its taste, without being disagreeable, left in the mouth, for some time after, an acrid feeling of a peculiar kind, though there was nothing metallic about it. It was gritty under the teeth, and sandy matter was found in it. The result of the experiments was,

1. That no trace of arsenic, mercury, zinc, antimony, &c., could be found in the bread.

2. That it contained atoms of copper and iron, as well as phosphates of lime and magnesia.

Without, however, pronouncing decidedly that there was no poison in the bread, the experimenters tried the following method of approximating the truth :

About three ounces of the bread, with a little meal, was given to a healthy dog, at nine in the morning. In a quarter of an hour he vomited without much effort. The same trial was made at three in the afternoon, with the same result.

The dog, however, seemed nothing the worse for it. On the third day after, he was given some common bread and meal, with a little alcoholic extract of the suspected substance. The same symptoms supervened.

In consequence of the general result, the experimenters conceived that there was reason to suspect the presence of a vegetable poison in the bread, and requested the Procureur Générale to call in further assistance. Two chemists from Paris were accordingly deputed to proceed further with the analysis ; but they soon concluded that there was neither arsenic nor any other mineral poison in the bread ; and, as for vegetable poison, they seem to have been dissuaded from attempting any search of the kind, on account of the mouldy state of the substance to be examined. It was not until the twenty-second of November that M. Orfila was commissioned to test the suspected bread ; but he speedily obtained from it a notable quantity of arsenious acid ; and, upon the evidence thus supplied, the accused X., (who, by the way, had some moral and circumstantial points also made out against him,) was condemned to death.

M. Orfila then proceeds to relate succinctly the experiments by which he arrived at the important result, and to show how it happened that the four experimenters previously engaged in the inquiry had failed in coming to the same conclusion.

Having cut the bread in pieces, he treated it with cold distilled water ; shook it for some time, and then left it to stand for twenty-four hours. He then filtered, and applied the liquid

hydro-sulphuric acid test. The filtered liquor became yellow, without any perceptible precipitate. Some drops of hydrochloric acid were now added, to throw down the sulphuret of arsenic which appeared to be formed. But this required some days to effect; and here, probably, was the cause of the failure in the experiments previously instituted. "*It cannot be too often impressed on analysts,*" says Orfila, "*that when arsenious acid is mixed with gelatinous, and albuminous, and vegetable matter, it may be so engaged with it as to be very differently affected by re-agents from what it is when merely in watery solution.*"

The precipitate of sulphuret of arsenic and organic matter, just mentioned, having been decanted and washed repeatedly with distilled water, was finally treated with a very fine filter, and washed with very dilute water of ammonia, which it is known dissolves the sulphuret without affecting any other matters in the precipitate.

The ammoniacal solution was then put into a watch glass, and a little carbonate of potash and charecoal added. That was applied in order to decompose any little animal matter which might still chance to be present in the mixture.

The watch glass and all was then pulverized in a porcelain mortar, and the powder introduced into a fine test tube. A red heat was procured over a lamp, and the metal arsenic was speedily produced.

M. Orfila concludes with some practical hints relating to his processes. In the first place, he says, we should never neglect to pulverize the watch glass when we have to deal with very small quantities of suspected matter, for we may not be otherwise able to detach the whole of the sulphuret. And again, in heating the mixture in the watch glass, we must take care not to apply too great a heat, lest the sulphuret be volatilized or decomposed by the potass, and the metal thus escape into the atmosphere in the form of vapors. Finally, in order to economise the arsenic in the test tube, he recommends that, upon introducing the powder, we should draw out the upper extremity of the tube over a lamp. The volatilized arsenic is to be collected in the slender part of the tube, farthest removed from the heat which is applied. If the sublimed arsenic be too minute in quantity to be detached from the tube, or the interior of the latter appear only to be covered with a dark crust, the part containing the crust should be immediately put into the flame of the lamp; in a few seconds it will become brilliant. If we wish to obtain the arsenious acid from the metallic crust, the best me-

thod is—not to chase it up and down, as has been recommended,—but to put it into a tube of moderate length, open at both ends, and apply heat to the part where the crust is: the oxydation will soon take place. As to the metal, it is recognized,

First, by its physical properties;

Second, by the garlic fumes which it emits when thrown on burning coals;

Third, by its property of being dissolved in nitric acid, with heat, leaving, after evaporation, a white residue, which, on being dissolved in pure water and treated with hydro sulphuric acid, yields, in a few minutes, a characteristic yellow precipitate—the sulphuret of arsenic, soluble in ammonia.

We publish the following letter to show that bayonet wounds were of very rare occurrence. It is addressed by an army surgeon, to Mr. Samuel Cooper.

DEAR SIR:—I was forcibly struck with a passage in one of your lectures, recently reprinted in this journal. You are there represented as having stated that you never met with a bayonet wound, and, if I recollect rightly, that Larrey, whose scope for observation in such matters has at least been equal to any surgeon in the world, had made a similar declaration. I myself had the fortune (good or bad) to be left upon the field of Waterloo during four days after the action, for the purpose of attending the wounded on both sides. The French left not a single medical officer with their thousands of injured men, as they would have done had their retreat been orderly; and all the fag and responsibility fell upon us of the English army. I will not say that we had neither Dutch nor Belgian surgeons among us, but I did not see any. In fact, as regards the Belges, there was comparatively little occasion for their detention, inasmuch as some twenty or thirty thousand of their countrymen walked away from the fight before they had time to get wounded.

The cavalry regiment to which I was personally and particularly attached, charged a column of the French at the beginning of the action, and was almost cut to pieces. Thousands of the French, English, (but very few of our German or Hanoverian friends, as their own medical officers looked well enough after them,) Scotch, Irish, Dutch, and even Prussian soldiers, passed through my hands between the Sunday and the Thursday, at which time we had cleared the ground, by burying the dead and forwarding the

survivors to Brussels; but amid all the horrible consequences of the firing and unerring application of weapons, I do not remember one instance of a bayonet wound. We had to deal with round shot, shells, musket balls, and sabres, in every variety; but no trace of a bayonet made its appearance.—*Lancet*.

Blue Urine.—This phenomenon is of so very rare occurrence, that it is not even alluded to in works on the urinary secretion. In 1824, M. Fontanelle analysed some blue urine, and ascertained that the color was owing to the presence of a hydro-ferro-cyanate of iron. Soon afterwards M. Braconnot met with a similar case. He attributed the color to a peculiar substance which he called "cyamine." Since his experiments M. Majori, professor of chemistry at Geneva, and M. Cantri, professor at Turin, have detected the ferro-cyanate of iron in the blue urine. It is right to mention that Fourcroy many years ago, detected this salt in the urine of a woman who was subject to frequent and strong convulsions.

On the Identity of Small-pox and Cow-pox, and on a mode of introducing the vaccine pustule in the cow at pleasure. (Jour. der Praktischen Heilkunde, Januar. 1831.)

Dr. Sonderland, of Barmen, the author of the paper which we shall here translate almost without abridgement, if his experiments be correct, has at length succeeded in establishing what physicians have long labored to discover,—a satisfactory and simple explanation of the protective power of cow-pox against small-pox; and has announced, we will venture to say, the most important discovery which has been made in the pathology of these diseases since vaccination was first introduced,—by showing that they are modifications of one another, and that cow-pox in the cow is simply small-pox in man, and may be produced in that animal at will by the variolous contagion. Of the authenticity of his facts we do not pretend to judge. All we can say is, that the author, if we judge from the language of Hufeland towards him, is a respectable practitioner, and a public medical officer.

"The simplest and surest mode," says he, "of producing cow-pox in the cow, and thus proving indisputably the identity between the contagion of cow-pox and that of human small pox, is to follow the procedure here laid down.

"Take a woollen bedcover which has lain on the bed of a small-pox patient who has died during the suppurating stage, or is suffering from the disease in a considerable degree, and is lying in a small, imperfectly ventilated apartment; and when it is well penetrated by the contagion, roll it up immediately after death, or on the fourteenth day of the disease, wrap it up in a linen cloth, and then spread it for twenty-four hours on the back of a quey, in such a manner that it cannot be thrown off by the animal. Then place it for twenty-four hours on the back of each of three other queys, and afterwards hang it in such a manner in their stall that its exhalations may rise upwards and be inhaled by them. In a few days the animals will fall sick and be seized with fever; and on the fourth or fifth day the udders and other parts covered with hard skin will present an eruption of pustules, which assume the well known appearance of cow-pox, and becomes filled with lymph. This lymph, which exactly resembles the lymph of genuine cow-pox, if used for inoculating the human subject, will induce the vaccine or protective pock. The only precaution which it is necessary to observe is, that the person about to be inoculated shall not be exposed in any manner to the contagious effluvia of the cow-house, either directly or through the intervention of the experimentalist's clothes, otherwise he may have natural small-pox.

"A bedcover impregnated with the variolous contagion, if firmly rolled up and wrapped in linen, and afterwards in paper, and then properly packed in a bucket, will retain the contagion for at least two years, so as to infect a cow with cow-pox, provided it be kept in a cool and shady place, where the temperature does not fall under 32 deg. or above 52 deg.

"My present occupations prevent me at this particular period from giving a full and scientific exposition of the consequences which must follow from this discovery; but I may state them shortly in the aphoristic form.

1. "This discovery is new; for, although many have suspected the identity of small-pox in man and cow-pox in the cow, and have in consequence performed inoculation with the matter of both, yet no one has previously ascertained the possibility of transmitting the contagion to the cow in the gaseous form, so as to decide the question beyond all doubt.

2. "The desire of physicians and governments to discover cow-pox in cows, in order to revive

the vaccine lymph, is more than fulfilled by the discovery of a simple method of engendering cow-pox in the cow at will.

3. "Jenner's discovery of the protective power of vaccination, hitherto imperfect, is now perfected, because the hitherto unknown nature and origin of cow-pox are laid open.

4. "All previous uncertainty regarding the quality of vaccine matter, its degeneration, the loss of its protective property, and the like, must now cease, because we have obtained a clear insight into the nature of cow-pox and can lay down a substantial theory of its operation.

5. "This discovery must tend to widen the boundaries of physiology, pathology, and therapeutics, since it shows how the subtle contagion of small pox, so hostile to the nervous system of man, may be conveyed in the aeriform state from him to the cow, excite in that animal a similar disease, but in doing so be changed by the special constitution of this class of animals into a permanent contagion of a different kind.

6. "An instructive lesson may be drawn from this discovery how the poison of diseases in the gaseous form may be communicated to the lower animals, and according to the difference in their constitution engender diversified products, which may then be used as protective means against the diseases from which they originated. Such, for example, may be subsequently proved of scarlet fever, measles, yellow fever and plague.

7. "It is now clear, why in recent times cow-pox has been seldom or never seen in the cow. For the cow-pox of the cow arises merely from infection by the variolous exhalations from men recently affected with small pox, and coming in contact with the cow. As epidemics of small-pox have been rare during the last thirty years, cows could seldom be exposed to infection, and have therefore seldom exhibited the disease."

Edinburgh Med. and Surg. Journal.

In a late number of the "*Gazette Medicale de Paris*," there is republished from the "*Athenæum of Treviso*," an extraordinary, and as far as we are informed, an *unique* case of monstrosity—one which leads to the most important physiological conclusions. It is recorded by Senior And. Aug. Spezzi, and is as follows:

"On the 21st July, 1831, I was called to assist at the accouchment of Santa Rossi of Cresino, ætat. 30, the wife of a fisherman, the mother of several children, a woman of sthenic and irritable temperament. She had reached the full term of her pregnancy. When the pains com-

menced, I found the left arm of the infant presenting in the second position of Baudelocque. Indeed, the elbow already projected in the vulva. I did not hesitate to turn the child, an operation which terminated the accouchment with the utmost facility. It was also necessary to assist the delivery of the placenta, which adhered strongly to the anterior wall of the uterus. The mother suffered little, and the labor was short and favorable. The child was of the female sex, well grown, and about a foot long. Despite all the characters of decided anencephalitis, it immediately gave manifest signs of life, moving its limbs, breathing, and crying. The heart and arteries beat as usual. It lived thus for eleven hours, when, without any previous gradual sinking, it suddenly died.

"I proceed to the description of the monstrosity. The integuments, instead of arising from the orbital vault to form the forehead, descended obliquely backwards to rejoin the posterior part of the neck, which was extremely short. This portion of the skin, gorged with blood, was covered with a few long hairs. Behind the neck arose a nipple-like protuberance, resembling pretty closely the extremity of the little finger. While the infant lived, I touched this prominence at several intervals. This touching invariably occasioned an acceleration of the respiratory movements, and a renewal of the cries, which were more like hiccups than the ordinary laments of children. The eyelids were open and motionless; the eyes and tongue were also inactive, and the mouth remained a little open. A child thus formed was of course an object of astonishment and curiosity to all who saw it. I performed the dissection in twenty hours after death, in the presence of several professional persons.

"There was no cranial cavity. There remained of this bony case only its base, in an irregular, retracted, very hardened state. The bones forming it were of extraordinary thickness, difficult to distinguish one from the other, forming a confused and closely united mass. In pursuing my researches I found no trace of brain, no cerebellum, medulla oblongata, or meninges, and on the base no indication of nerves. The spinal marrow had its origin superiorly, and beneath the skin, at the posterior region of the neck, from the protuberance clearly described. Proceeding from thence, it entered the rachidian canal by an opening situated behind, between the base of the skull and the atlas. The origin of the rachidian chord and the chord itself, appeared rather more consistent and thinner than usual, and the same remark applied to the emanating nerves. Examining, then, the nerves which have their origin from the cranial viscera, I found each at its natural place, but at a little distance from the base of the cranium it commenced to diminish gradually in number, and they disappeared altogether before reaching it.

"The other visceral cavities were in the normal state, except the heart, which was of a very considerable size, and having the anterior ventricle large in proportion, and formed of two distinct cavities, that is to say, divided almost in its entire length by a musculo-membranous parti-

on. The foramen ovale was open, and the usual valve which serves to close it did not exist."

The editor of the *Lancet*, in commenting on this case, offers the following observations, in which we concur:

"There are many examples of absence of the brain or spinal marrow, or of both together, but not one of simultaneous deficiency of brain, cerebellum, and medulla oblongata, in which the infant lived a single instant after birth. In M. Breschet's cases there invariably remained some trace of brain, cerebellum, or medulla oblongata. It is unnecessary to pursue the author through his unsatisfactory series of conjectures respecting the cause of the monstrosity. It is sufficient for us to mark the all-important physiological fact of the carrying on of respiration, and the movements of the larynx without the influence of the brain, cerebellum, or medulla oblongata. The sensation of touch also existed in this singular creature, thus proving the presence of a *centre of perception*, notwithstanding the absence of the organs we have ever been accustomed to consider as the only possible recipients of external impressions. The fact, as it stands, is worth a million of the cruel experiments, with the perpetration of which some modern physiologists are charged."

VACCINATION IN WHOOPING-COUGH.

We give the following cases, extracted from a letter of Mr. T. W. Chevalier, of London, published in one of the July numbers of the *Medical Gazette*, in confirmation of the successful adoption of vaccination in cases of whooping-cough.

To the Editor of the Medical Gazette.

SIR: Some time ago a letter was published in our valuable Journal, vol. viii., page 46, from a correspondent signing himself "H. M. M." on the efficacy of vaccination, in arresting the progress of whooping-cough in patients who had not been previously subjected to the former disease. Your correspondent encourages us to hope for an account of some cases in which he successfully treated the cough by that means; and you, in your note, expressed a wish to receive them, in which, I trust you will allow me, though so long afterwards, to join you, as they have not yet appeared. In Doctor A. T. Thompson's interesting lecture upon whooping-cough reported in your *Gazette*, vol. vii., pages 801-807, we are informed that the practice of vaccinating for the cure of the whooping-cough was first suggested in Germany; and that it is said to have been confirmed by some more recent experience in America.

The Doctor justly remarks that the remedy (although proved valid,) must be of very limited utility, as it is not likely that vaccination should be delayed, with the risk of small-pox being taken in the interval, in order to keep it in reserve as a remedy for whooping-cough; but I am sure that he will not, on that account, depreciate its importance in the distressing and unusually dangerous case of very young infants who occasion-

ally suffer, and not uncommonly fall victims to its severity. Since the publication of the letter of H. M. M. only three opportunities have occurred to me of putting to the test of experiment the power of cow-pox to arrest whooping-cough, and it succeeded in them all. The first was the son of P. B., Esq., one of my personal friends, a child of one year, who had for some weeks been afflicted with obstinate fits of coughing, and slight spasmodic effort in the next subsequent inspirations. I requested his father to confide in me, that the infant should come to no harm, and, without giving it any medicine to await the whoop, this child at length whooped decidedly during three or four days, so that I had no longer any doubt of the nature of its disease. It was then vaccinated and cured completely within the week.

The next case was an infant under two years of age, the child of Major Fitz M., who had very recently lost a still younger babe from the same disease. The little patient had been suffering from it for two months and upwards; and neither she nor the deceased had ever been subjected to the cow-pox. He was going into Yorkshire immediately, and I advised him as soon as he got there, to allow it to be vaccinated, which was done, and he has since informed me that the cough was completely cured by the eighth day.

My third case was a dispensary patient for fractured radius, a boy of three years old. He was brought to me about four months since, and had then been suffering from the cough for as long a period. I vaccinated him, and he ceased to whoop as the cowpox vesicle attained its acme; a very slight cough remaining, however, when I last saw the child a fortnight afterwards. Dr. Thompson particularizes the third week from the commencement of the whoop as the proper period for vaccination. The evidence of the above cases would extend that period without limitation; but I am far from offering them as sufficient to establish more than the propriety of trying the efficacy of vaccination in every case of whooping-cough which has not been preceded by the cow-pox or variola. My own practice is to decline vaccinating infants unless under circumstances of exposure to the variolous infection, until they attain the age of eight or ten weeks, when the red gum is probably disappearing, and the process of teething is still to be commenced; and it is at this early age that many a life, we know not how valuable, is lost from whooping-cough, to such tender sufferers always a very formidable disease. There is a very rare complaint of which I have seen but two or three instances, and only one that terminated favorably. It consists of nothing else but the whoop, or a more violent spasm, producing death without any cough preceding it. In the successful case, to which I refer, the cough was produced after some months, and the child was soon cured. In the others, although they continued as long a time, no remedy appeared to be of the least avail. It would be exceedingly interesting to ascertain whether vaccination be a cure for this frightful and most fatal disorder.

I am, sir, your obedient servant,

T. W. CHEVALIER.

THE
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MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,

EDITED
BY GRANVILLE SHARP PATTISON, M.D.,
Prof. of Anat. in Jefferson Med. Col., Philad.

PUBLISHED BY DUFF GREEN.

VOL. I. WASHINGTON, OCTOBER 17, 1833.

No. 4.

MEDICAL DIPLOMAS.

WE have had numerous inquiries lately addressed to us, to ascertain whether the diploma of a *certain* school did not secure to those who held it, superior privileges and advantages on their visiting Europe; and on inquiry we find that an absurd statement to this effect has been most extensively circulated. We have too high an opinion of the professors attached to the institution referred to, to permit ourselves for a moment to believe that they themselves would, with the view of electioneering for students, have given currency to a statement which *they must have known was entirely destitute of truth*. We absolve them from all participation in the act, and we are persuaded that if any student will call on any of them for a confirmation of the report, that "*the alumni of this particular school are permitted to attend the lectures of the Parisian institutions gratuitously, a privilege refused to gentlemen who hold their diplomas from other American schools,*" they will unhesitatingly tell them that the report is a mere fable, destitute even of the semblance of truth. The privilege of attending gratuitously the lectures delivered in the Medical Schools of Paris, is one conferred on all students, be they graduates, or merely pupils commencing the study of their profession. The medical institutions of France are supported at the expense of the Government; the professors are paid by it, and the lectures are open *gratis* to ALL applicants. In Great Britain, on the contrary, the Medical Schools being established on the same principles as those of the United States, and the professors being dependant on the fees of the students for an income, the alumni of this country, no matter in what school they may have

graduated, are obliged to pay for their tickets the same fees as all other students. Indeed, the regulations of the public institutions of Great Britain are exceedingly illiberal, for should a graduate of either Jefferson Medical College, or of the University of Pennsylvania, or indeed of any other American school, wish to settle in London and be desirous to become a licentiate of the Royal College of Physicians, or a member of the Royal College of Surgeons, they could not be received as a candidate for examination to the former, until they had studied at a British University, and received a diploma from it; nor at the latter until they had attended in *British Medical Schools*, the course of lectures, and the attendance on hospitals, which their regulations prescribe to their candidates.

We have considered it more delicate in noticing this report, not to name the particular Institution for the purpose of favoring which, some of its injudicious friends have given it a currency. On our personal responsibility we have given it the most positive and most unqualified contradiction, and we are persuaded that no person of respectability will have the boldness to come forward and openly make the statement. If young American physicians visit Europe, the only privilege their diplomas will confer on them, no matter in what school they may have been received, is the title of M. D. The attentions they will receive will be measured by their acquirements, and we would most conscientiously recommend them, if they are desirous to multiply these, to select for their ALMA MATER the Medical School where they will obtain the greatest facilities for acquiring medical knowledge.

We observe that extracts have been copied into late number of the "LANCET," from Mr. Fiddler's Travels in the United States and Canada, the object of which is to place the education and scientific acquirements of the American physicians and surgeons on a much lower scale than that of the members of the profession in Great Britain. A similar fallacy has been inculcated in the works of Capt. Hall, Mrs. Trollope, and other travelers who have visited us. Now, although we are not amongst those who feel sensitive to the attacks which, by prejudiced travelers, may be circulated, either against our native country, or the country of our adoption, still, as we know that we are much better informed as to the actual state of the profession, and of professional education in the two countries than those are who have attempted to disparage us, we consider it our duty to disabuse the minds of professional men in Great Britain on this subject. If any of them should, on the faith of Mr. Fiddler's statement, that "American physicians do not commonly place themselves in a situation in which competition with Europeans is hazarded," emigrate to this country, they will find themselves woefully mistaken; they will discover that Mr. Fiddler is a very ignorant, uninformed writer, and they will meet, in the game of professional competition in the United States and in Canada, men who are highly educated and as deeply imbued with professional knowledge, as they will have to contend with in the pursuit of reputation and professional eminence in England, Scotland, or Ireland.

Our professional life has been partly spent in Great Britain, and partly in the United States, and we have enjoyed the intimacy of the magistrates and the mass of the profession in both countries. We have held professorships in two universities in Great Britain, and we have occupied medical chairs in two of the schools of America. We do not, therefore, vaunt when we assert that no person can know better than ourselves the actual state of the profession in the two countries; and, with the advantages for information which we have enjoyed, we have no hesitation, the opinions of Fiddler, Trollope, and Hall, to the contrary notwithstanding, to assert that the acquirements of American physicians are such as to qualify them successfully to compete, both at home and abroad, with their brethren of Europe. If any of our English readers should doubt the correctness of the above opinion, we would only refer them to an examination of the records of medical and surgical improvement for the last thirty years,

and they will then discover that American physicians and surgeons, in proportion to their numbers, have furnished their full quota of discoveries and improvements in medical science.

It is true, that in so far as the publication of medical books is concerned, our brethren on the other side of the Atlantic have decidedly the advantage of us. But the mere multiplication of medical works affords no positive evidence of the advancement of medical science. Book-making has, during the present century, become fashionable in Europe, and too many of the medical men of these countries have been seized with the *caecothos scribendi*, whilst in the United States, for reasons which it is unnecessary to detail, authorship has not been so prevalent.

We are willing to admit that there are some defects in the system of medical education pursued in the United States, which it would be desirable to remedy, especially the crowding on attendance of lectures into two, or at most three sessions. But the requirements for the diploma in the United States, in so far as the number of courses is concerned, are higher than those of the Royal College of Surgeons of London, and on this head there is, therefore, nothing to make us feel ashamed. The fault in our system of medical education is not that we do not require an attendance on a sufficient number of lectures, but that we do not insist that the attendance on those should occupy more than two sessions. It is not, however, our object to discuss or propose improvements in medical education; we therefore leave this subject for the present, and return to the topic more immediately under discussion. Having conceded that our system of medical education is susceptible of improvement, we would now vindicate ourselves from the charge which has been brought against our medical schools. We insist on their efficiency, and we would fearlessly challenge a comparison betwixt their professors and those of the British colleges. We are feelingly alive to the reputation of our medical institutions, and we are determined not to rest their vindication on idle assertions. We have challenged a comparison, and most fortunately we have the power to realize it.

The plan we intend to adopt in the decision of the question—what are the comparative merits of the medical teachers in Great Britain, and the United States of North America?—is a very simple one, and one which must prove satisfactory to all parties. The characters of medical professors are only to be established by an examination of their lectures. As the discourses delivered by

some of the most eminent teachers of London are now in course of publication in the *Lancet*, the *Medical Gazette*, and other English journals, and as these lectures are corrected by the professors themselves, we have the assurance, 1st. That they are the *bona fide* lessons which have been taught by the gentlemen to whom they are attributed; and, 2dly. From their having undergone their revisal, that they are by *themselves* considered equal to any lectures which they deliver. We are therefore furnished by the one party with materials for forming a judgment as to the quality of instruction furnished by the English professors to English students. All that is therefore required, to enable the members of the profession, both at home and abroad, to estimate the comparative merits of the instruction provided for the pupils of the two countries, is to publish some of the lectures delivered by some of our most distinguished American lecturers.

We therefore propose, by employing a stenographer, to obtain, during the course of the ensuing winter, some of the lectures delivered in our American Medical Schools, and having obtained them, and submitted them to the revisal and correction of those gentlemen who deliver them, we shall then publish them in the "*Register and Library*," and bring forward, in *relief*, a comparison of the relative merits of the lectures of the teachers of the two countries. We shall, that our friends on the other side of the Atlantic may have no reason to complain, publish in one number the discourse of an English teacher, on a particular disease, and in the succeeding one the lecture of an American professor on the same subject. Being placed side by side, there will be no difficulty in forming a comparison, and, after a series of such comparisons, the question as to where the best instruction is furnished may easily be settled. We never bet: were it otherwise, and were we at all disposed for sporting, we would not be afraid to wager a good round sum on our own side. We are full of confidence, and we have little doubt that we shall not be disappointed. "*Palmarum qui meruit ferat.*"

In our first number we announced our intention to publish, occasionally, some of the interesting lectures which are now in course of publication in Europe. In fulfilment of our promise, we this week publish an admirable clinical lecture delivered by the Baron Dupuytren, taken down at the time of delivery in short hand, and afterwards revised and corrected by the Baron.

LECTURE ON LACHRYMAL TUMORS AND FISTUL

The disease which produces lachrymal fistula shows itself under two very distinct forms, dependent on its successive degrees of development, and, in ordinary language, erroneously confounded under the same denomination. As long as there exists no opening to establish communication externally to the lachrymal sac, there can be no fistula; but there is then observed a dilatation more or less considerable which constitutes the lachrymal *tumor*. This is the first period of the disease. The perforation of the sac, or *fistula*, constitutes the second.

The lachrymal *tumor* originates and increases almost in an insensible manner: at first it is more than a barely appreciable swelling, situated within and below the greater angle of the eye, and below and behind the direct tendon of the orbicular muscle of the eye-lids. Circumscribed in extent, the skin unchanged in color, and exempt from pain, the tumor at first is easily emptied on pressure, either by the reflux of the matter it contains through the lachrymal point, or, which is less common, by its discharge through the nostril. The lachrymation which accompanies its early progress, becomes more and more considerable every day, until at length all the tears fall over the cheek. The eye of the affected side is always red, its conjunctiva slightly injected, its lids manifestly swollen, especially at their free edges, which in the morning are found glued together by a tenacious yellow matter furnished by the irritated meibomian glands.

The disease may last a long time in this form without making much progress, but a period arrives at length, when the walls of the tumor grow thin, when it no longer is evacuated by pressure when heat and pain are experienced in its site when, lastly, the surface reddens and inflames. This inflammation often extends to the whole of the eye-lids, the cheek, the nose, and even to the forehead. The eye becomes red, the liquid which bathes it, and which spreads over the cheek daily, acquires more heat and acridity. The tumor presents the aspect of an acute phlegmon, fluctuation is now perceived, and, finally, an external opening forms. At this period the epiphora diminishes in the majority of cases, the tears finding, through the new opening in the sac, an outlet which was previously wanting. The liquid discharged by the fistula consists of a mixture of tears and purulent mucosities. In many cases the continuance of the inflammation induces the disorganization of the affected tissues, and the extension of the malady to the ad-

ent parts. Vegetations then appear in the scrofulous track; callous indurations line its edges; the mucous membrane of the sac and the nasal canal become softened and fungous. It is even destroyed to a variable extent, and the periosteum participating in this destruction, the os unguis, and even the adjacent portions of the maxillary bone, are laid bare, and fall into a state of caries at the bottom of the fistula. This caries, however, is not always delayed until the disease arrives at the degree just described. Sometimes it is observed even before the lachrymal tumor is perforated, and consequently before the fistula is formed. A case of this kind is now before us, the history of which we shall presently revert. By the sketch thus traced of the march of this disease, you will readily recognize its characters, and the signs on which its *diagnosis* is established. We shall not, however, enter into every particular of this subject, as it is our design only to expose the most important practical considerations suggested by the facts under our observation. Nevertheless a few words may be advantageously bestowed on the *cause* of the principal lesion of the lachrymal sac, in which originates the disease. Scarpa assigns it to the palpebral discharge, thus considering the affection of the lachrymal sac as always secondary to the palpebral inflammation. According to him, the purulent liquid conducted into the lachrymal passages irritates and inflames them; the sac, or nasal canal, then ulcerates, perforation takes place, and at length the adjacent bony parts are destroyed. Such are the four stages described by the celebrated surgeon of Pavia; but more recent researches have proved, that the lachrymal passages, like all excretory ducts, owe the majority of their lesions to their investing mucous membrane. When a certain point of this membrane is inflamed, immediately the exterior fibro-cellular tissue becomes the seat of an active congestion, which constricts the diameter of the internal duct. This constriction itself becomes a permanent cause of irritation. The flow of blood soon increases, the inflamed tunics soften, and the fistula is formed. The duct of steno, the urethra, the rectum, the cæcum, the œsophagus, often furnish indisputable proofs of this species of etiology. All the causes, consequently, capable of keeping up permanent irritation on the eye, the eye-lids, or the mucous membrane of the nasal cavity, are also the remote causes of lachrymal tumors. It is for this reason that they are so often met with in pale, fair persons, whose conjunctivæ are habitually injected, their eye-

lids reddish and swollen. It is thus that they constitute a sequel of measles, small-pox, and scarlatina, which frequently leave behind them irritations of the ocular apparatus and palpebral edges. The striking in of cutaneous diseases, old venereal affections, the scrofulous state of the constitution, operate in the same manner, causes exclusively mechanical, may also determine tumefaction of the sac and its consequent erosion. In one case, I have observed the congenital absence of the nasal canal. The sac was perforated in this case, and the patient cured by the establishment of an artificial passage.

It results, then, from the recognized causes of the lachrymal tumor and fistula, that antiphlogistic treatment is the most suitable at the commencement of the disease. These means frequently indeed succeed by themselves, without our having recourse to any operation. At a more advanced period, but while the disease is still simple, while there exists only a moderate dilatation of the sac, or a recent perforation not accompanied by callosities, fungous vegetations, disorganization of the mucous membrane, or caries of the bones, antiphlogistic treatment, seconded by revulsion and fumigations, will still frequently succeed in obtaining a permanent cure. Lastly, when the disease has reached that degree that an operation is indispensable, we must still submit the patient to a preparatory antiphlogistic treatment, provided there exist, either in the eye, eye-lids, or surrounding tissues, any considerable extent of inflammatory action. But it is not merely to the local affection that the surgeon should direct his attention; he should also carefully search after the remote causes which produced it, and direct his investigations to the general constitution and its anterior affections. If the effect of scrofula, venereal or repressed diseases of the skin, he will combat the former, or recall the others to their primitive seat, at the same time that he employs the local treatment which the circumstances may require.

The cure of this disease, however, can, in hospitals, be rarely attempted, except by operation; for in general the patients only apply when the fistula is already of old standing; or when the tumor conceals such disorganization as renders it urgent to open and remove the obstructions in the nasal canal.

To perform the operation, the surgeon only requires to be provided with a common bistoury, with narrow blade and solid point, and a canula mounted on a stylet, which we will describe by-

and-by. The patient should be seated on a low and firm chair opposite a well-lit window, the head reclined backwards, and supported on the breast of an assistant, whose hands are employed in holding the patient quiet. The body should be surrounded by a strong cloth, also enfolding the thoracic extremities. The surgeon then, in the first place, ascertains the exact position of the maxillary edge of the orbit, close to the greater angle of the eye. It is not unusual to find this edge more elevated or depressed, more projecting or retiring, than you would suppose by a mere inspection; and these variations might deceive the operator, and cause him to fail in the opening of the sac. Again, the direct tendon of the orbicular muscle must be examined with equal care, for its disposition is not more constant. It is between this tendon, which must be left untouched above, and the maxillary edge of the orbit, below which the sac is no longer to be found, that the instrument is to be plunged. We should never forget these elementary principles, on which the success of the operation depends. The following case illustrates the process thus followed for several years, a process, too, which combines facility of execution with certainty and promptitude in the result.

Case 1. Alexandrine Chalon, ætat. 36, of lymphatic constitution, and regular in her courses, came to the Hôtel Dieu, to be treated for a lachrymal fistula at the inner angle of the left eye. The disease, the cause of which she did not know, was of more than six years' duration.

For the five first years there was continual lachrymation, and consequently great embarrassment of the vision, a dryness of the corresponding nostril, and headache at the same side. At the end of this time, in the month of September, a minute tumor showed itself at the inner angle of the eye. It was compressible, and in some degree removed by a voluntary effort. By pressing with the finger on the swelling, all the fluid escaped through the lachrymal points. Shortly after this there appeared an erysipelatous redness which extended to the neighboring parts. The tumor then burst, and discharged its contents. Nevertheless this opening became obliterated, and a new tumor appeared more voluminous than the first. This also opened; a definite fistula was the result. The patient came to the hospital the following January; the tumor was then the volume of a small nut, and presented in its centre a fistulous opening, which established a communication between the lachrymal sac and the exterior, and by which it could be completely

emptied. The discharge of tears was very great, the eye of extreme sensibility, and very red; the nostril of the same side dry, and the head painful; the lower eye-lid lifted up, and covering more than half the eye; the surrounding parts strongly inflamed, and the cheek furrowed by the flow of tears.

After some days' rest and antiphlogistics, the operation was thus performed. The patient being seated, as already described, the operator placed himself before her, cut into the lachrymal sac to the extent of some lines, plunged the bistoury into the superior part of the nasal canal, the blade of the instrument being a little elevated and urged backwards. He then introduced, and glided before the anterior face of the blade, the free and smooth extremity of a little canula placed on its sound; next, withdrew the bistoury, and sunk the canula by moderate pressure into the nasal canal, which it should occupy in its entire length, so that its end should be entirely hidden in the bottom of the inferior part of the lachrymal sac. The sound being in turn withdrawn, the canula was left. During the operation a few drops of blood only escaped from the nostril. To ascertain if the tube was properly placed, the anterior orifice of the nasal fossa was closed, and the patient desired to make an effort of expiration when the air, passing along the canula, escaped above with a manifest hissing. If again the nasal fossa be left free, and the action of blowing through the nose expels blood or matter by the nostril, the counterproof of free communication is obtained. A contrary result shows that the operation is imperfect. In this patient the success was such that in four days it was almost impossible to tell that any fistula existed. The little wound in the sac was healed; there was no trace of tumor; no lachrymation or embarrassment of vision; she was even unconscious of the presence of a foreign substance in the lachrymal passage. In twenty days she was dismissed perfectly cured of the fistula, and in good general health.

The *canula* now requires attention. The indication had long been acknowledged by surgeons of leaving the nasal canal its full liberty, and this object was sought by the introduction of inert cylinders destined to be substituted for the mucous membrane, the surface of which they covered. Foubert, Pellier, Benjamin Bell, Wathen and Mirault, conceived and practised during the last century, the substitution for the leaden wire and gut previously used, a canula which would act at the same time as a dilator used as a conduit for the tears; at first short, and of the same

diameter throughout, and liable to escape very quickly through the nasal fossæ, it was improved by Tlajani, who made it longer and of a conical form. But the instruments of these surgeons were still extremely defective, and their modes of operation have long fallen into neglect. The instrument used in the case described is different from those formerly employed; its canula is perfectly adapted to the nasal fossæ; it is more easily borne, less liable to escape into the nasal fossæ, or ascend into the lachrymal sac. In a word, it is perfectly proper to fulfil the uses for which it is destined.

The canula in question is either of gold or silver, and *made expressly for the patient* on whom the operation is to be performed. Its length is eight or nine lines for adults, five or six for children. It is rather larger above than below, and furnished at its larger extremity with a circular, rounded, and rather thick rim. If longer, it would lean below on the floor of the nasal fossæ, and would lift up the anterior wall of the lachrymal sac. If shorter, it would not descend below the vascular fold of the nasal canal, and would become useless in certain cases. Very slightly curved forwards, in order to its better adjustment to the direction of the nasal canal, its lower extremity is cut like the end of a flute. This instrument is mounted on a stylet, formed of a steel wire bent to a right angle. The part which enters the canula should fill it exactly. The other branch, which serves as a handle, is much longer, and shaped like a spatula. It is important that the free end of this stylet should be so adapted to the back of the canula that no projection can result which might wound the walls of the duct. The canula, lastly, should have no lateral opening.

Nothing can exceed the promptitude with which this operation is thus practiced. All is over so quickly that the patient is generally unaware that any thing has been introduced into the lachrymal passages. They are often sceptical of its presence until the stylet is introduced and struck against the canula in order to convince them. Other patients experience a slight tickling or obscure uneasiness, which disappears in twenty-four hours. The following case exemplifies still further the prompt success of this method despite of the long duration of the disease, and the disorders to which it had given origin.

Case 2. T. L. A. Galán, ætat. 15; good constitution, and of regular courses; had a well-marked lachrymal fistula of the right eye. The

lachrymation had been of seven years duration, and unknown origin, and for which she had been repeatedly blistered without advantage on the neck and arm. Two months only before her admission, a tumor appeared, which ran a closely similar course to that described in the first case, and was operated on in the same manner. She was unconscious of the introduction of the sound. In five days the little wound was entirely cicatrized, and the inflammation subdued. On the eighth day there scarcely remained any traces of the malady, and on the eighteenth she was dismissed cured.

The following modification of this process has been proposed. When the sac is cut into, the extremity of a long stylet is introduced into the nasal canal. Forced in deeply, it passes the obstacle with the greater ease, from its narrowness of diameter. The canula is then pushed down, having been previously placed on the stylet, which serves as its guide, and prevents its missing its way. When the upper end of the canula arrives near the surface of the skin, the stylet is withdrawn, and it is replaced by an extremely short sound, by the assistance of which the canula is depressed to a suitable depth. But even the author of this modification acknowledges with reason, that, while much more complicated than the process of the Hôtel Dieu, it possesses over this no special advantage. Some accidents too, to which the presence of this canula may give rise, have been laid hold of as objections, founded on special defects. Amongst these inconveniences is principally remarked the ascent of the canula in the lachrymal sac, or its fall into the nasal fossæ, by the lower end of the nasal canal. The first of these accidents, in a shorter or longer period, gives rise to inflammation, ulceration, and abscesses, which necessitate the extraction of the canula. To perform this extraction, I proceed as follows:—I have had made a little steel sound, like that which serves to introduce it at first. The part of the sound which is introduced into the canula is cleft, and its two portions separate by their own elasticity. Each of them is terminated by a minute notch, the points of which are directed outwards. When introduced they are kept together by a little clasp, which can be withdrawn at pleasure. As soon as their inferior extremities pass the beak of the canula, they separate by their elasticity; the two little notches catch the edges of the canula, so that the sound cannot be withdrawn without bringing this with it. The mechanism is very simple, and the instrument of very easy application. This pro-

ceeding may, nevertheless, be altogether omitted, when the canula ascends high into the sac. In this case it suffices to make a little incision into the sac, in order to seize the canula, and extract it with the ligature forceps.

The eversion of the upper edges of the canula is designed to prevent its fall into the nasal fossæ, and this object it generally answers. Nevertheless, this accident sometimes happens, and then the instrument irritates and inflames the mucous membrane of these cavities, ulcerates and destroys it, and even perforates the palatine vault. We have often seen the point of it even projecting, more or less, into the mouth. From the conical shape of the canula, its extraction through the palatine vault is attended with difficulty, and requires very considerable, and necessarily injurious efforts. Under these circumstances, the best plan is to push it from below upwards into the nasal fossa, and then extract it by the anterior nostrils, either with the ligature or common dressing forceps. A case requiring the former kind of extraction, occurred in a female who had been operated on according to the usual process, and who wore the canula for eighteen months. During this period, she was free from every trace of her old disease. But in a few days after that time, some pain, swelling, and redness, were experienced at the greater angle of the eye. On pressing on this point, fluctuation was perceived, and the canula was felt to have reascended into the lachrymal sac. It would have been easy to have pushed it back into the nasal canal, but believing that the stay of eighteen months was sufficient to re-establish the freedom of this passage, it was determined to remove the canula. An incision was accordingly made below the tendon of the orbicularis muscle, as if for the ordinary operation of fistula, and the canula was readily extracted with the ligature forceps. The inconvenience ceased immediately, and the patient was cured in a few days.

Moreover, the accidents thus pointed out, can in no degree invalidate the results of the mode of operation; and instead of being very frequent, as has been asserted, they are, on the contrary, extremely rare. Again, this affection is often the effect of general causes, such as syphilis or scrofula; and if the surgeon cannot obtain information about these diseases, from the dissimulation of the patients, and consequently does not institute a general as well as local treatment; or if, as often happens, the patients neglect the general measures directed, it is evident that the failure cannot be ascribed to the operation itself. Last-

ly, the imperfect manner in which some practitioners perform the operation in question, scarcely, with justice, to be considered a fault in the process recommended. It has happened, for example, that instead of placing the canula in the nasal fossa, it has been thrust into the orbit or into the maxillary sinus, after having perforated the orbit, or even into the substance of the soft parts, and through the supra-maxillary bone. The following is a curious fact of this kind. A man was operated on in this town according to this process. The disease did not mend; the same accidents persisted; no improvement supervened. Having been called to examine the patient, the canula was found protruding beneath the skin, before the greater angle of the eye, and to the side of the nose. The surgeon, who had performed the operation, and who was a very competent person, immediately recognised his error. The operation was recommended and suitably performed, and the patient was well in a few days.

But the general results of this practice, which are very curious to consider, will reduce to the just value, much better than the history of isolated cases, the reproaches directed against the operation. The number of sounds remaining after the operations, the examination of the registers of the Hôtel Dieu, and the data given by the cutlers who furnished the instruments, demonstrate that the number of persons operated on for fistula, according to this mode of practice, amount annually, in my practice alone, to 150, two-thirds of which are hospital cases. Thus, for twenty years practice, there have been 3,000 operations performed, and of these the number of cures has been nine out of ten. There is surely no other process which can claim so fortunate a proportion.

We have hitherto only spoken of the treatment of the *simple* lachrymal tumor and fistula, that is to say, without any extraordinary alteration of the parts. But in many cases there exist complications to which it is necessary to apply a special treatment. Sometimes the orifice of the fistula is surrounded with little fungoid vegetations. They are either to be cut away with a curved scissors, or cauterised with the fused nitrate of silver. If the lachrymal points are closed, the operation does not destroy the epiphora, and the tears continue to flow abundantly over the cheeks. This may be easily remedied by the use of Anel's stylet, if the points are only engorged; but the complication is almost incurable, it being dependant on the adhe-

on of the walls of the ducts to a certain extent. There exist a simple denudation, or caries of the os unguis, after having removed the obstruction of the nasal duct and placed the canula properly, the cavity of the sac is dressed with soft charpie, and before allowing the external wound to close, we wait until the bone is covered, or until exfoliations have taken place. These dressings, however, are not rigorously necessary, as by the process employed the denudation and caries are spontaneously cured in many cases, without special treatment. In the perforation of the os unguis, and of the portion of the pituitary membrane which lines its internal surface, the cavity of the lachrymal sac communicating with that of the nasal fossæ, the tears, mucosities, and purulent matter, find by this mode of communication a more easy discharge, than by the external fistula. This must necessarily be observed, and the end of the surgeon in performing an operation is thus already accomplished.—We have only then to allow things to follow their natural course, with the exception of being prepared to practice the operation, as in cases of simple fistula, if the opening in the os unguis should happen to close inside, we find, in the work of J. L. Petit, the case of a child who had his bone perforated, and who wore in this opening a large sound placed according to the method of Woolhouse. This foreign body irritating the parts, and keeping up their ulceration, was obliged to be extracted. The wound in the bone closed, and the cure was accomplished by removing the obstruction of the nasal duct.

It does not enter into our plan to describe the different methods of treatment, the numerous modes of operation followed by surgeons since the last century. Some are definitively condemned and abandoned; others await the sanction of experience; but the present affords immense and incontestible advantages over the others. In conclusion, then, a rapid sketch of the history of this disease may be of some interest.

It was known by Hippocrates, Celsus, Galen, &c., but they had but very vague notions regarding its nature, being altogether ignorant of the anatomical dispositions of the lachrymal apparatus. It was only in the sixteenth century that the lachrymal tumor and fistula were well described by Fallopius of Leon. Its causes, then, are of three kinds,—the *specific*, such as scrofula, erysipelas, syphilis, &c.; the *general*, having their seat in some other part besides the lachrymal conduits; and the *local*, which affect these

latter channels. The *development* of the tumor takes place usually below the tendon of the orbicular muscle of the eye-lids, but sometimes it occurs *above* and *below* this tendon, so as to form two projections; the swelling assuming a bilobular form. The *march* of the affection divides itself into two periods, that of the growth of the tumor, and of the formation of the fistula. The *diagnosis* is established on signs which do not permit its being confounded with other lesions, such as hernia or dropsy of the sac. The antiphlogistic treatment should be applied at the commencement, when the stricture of the canal is due to inflammation; and if this proves insufficient, *derivatives* must be applied to. The *specific* causes, such as cutaneous eruptions, syphilis, and scrofula, must be combated each by the peculiar treatment it otherwise demands. Lastly, as to the local treatment, the mode of operation above described is more advantageous than all others, as the results of its application on an immense scale have clearly demonstrated.

Strangulated hernia in infants is so uncommon an occurrence that the possibility of its taking place has been doubted. In the number of the "*Dublin Journal of Medical and Chemical Science* for January, 1833," there is an interesting paper on this subject by Mr. Adams, of the Jarvis street infirmary, in which we have the case of William Furlong, aged 18 months, who was brought into the hospital with decided symptoms of strangulated hernia; attempts at reduction by the taxis having failed, the operation was performed. The appearance of the portion of intestine which was strangulated, and its state, are thus described:

"It was about the size of the largest cherry, with a polished surface, remarkably tense to the touch, and of a deep maroon shade, a color which was strikingly contrasted with the aspect of the epididymis and the brilliant azure hue of the testis. The stricture was remarkably tight. Guided by the nail of the index finger of the left hand, a small blunt-pointed bistoury was insinuated, and a slight division of the stricture having been made upwards and inwards, the intestine was returned into the cavity of the abdomen; and, lastly, the lips of the wound were united by three stitches. It was deemed imprudent to give any medicine by mouth; an anodyne liniment was therefore applied to the abdomen: the child slept soundly for three hours after the operation, and, on awakening, discharged a quantity of flatus and feces."

The case was perfectly successful.

In the same communication Mr. Adams gives several cases of "*Congenital Encephalocele.*" As very dreadful mistakes have been made in cases where hernia of the brain have been mistaken for other tumors, we recommend to the attention of our readers the following observations on their symptoms:

"From whatever part of the contour of the cranium the tumor which constitutes the hernia projects, it is of an oval or spheroidal form, soft and colorless. It is attended with pulsations synchronous with those of the heart. These pulsations, when the patient is at rest, are sometimes indistinct, but are rendered very manifest both to sight and touch on the slightest exercise. The patient, when old enough to be able to give us an account of himself, says he never feels any pain in the tumor: if an infant, he seems to suffer no uneasiness, even when the swelling is subjected to gentle pressure. The size of this tumor is momentarily augmented by the efforts of coughing, sneezing, or even crying; during any respiratory effort, a blush or redness is seen rapidly to pass over it, through the skin, which is generally thin and semitransparent where it covers the hernia. On carefully applying the fingers around the base of the tumor, the borders of the opening in the cranium, through which it has escaped, are easily felt: sometimes these borders are smooth and even; but I have in one case found them offering rough and elevated edges. The intellectual faculties in all the cases I have witnessed at a period of life when these could be estimated, remained entirely unimpaired."

The following is a case where the disease was treated successfully by puncture; it is the second on record where this practice has been employed, and the first where it has been employed successfully.

"A. B., aged six years, is a healthy looking little girl, of a muscular frame; the head, to the centre of the occipital region, is remarkably well shaped; but a little below the tuberosity of the occipital bone is a tumor about the size of a hen egg, placed transversely; it stands out, but is inclined downwards and backwards towards the neck; at first view it would give the idea that a common wen had originated here; but a closer examination teaches that the tumor has a pulsatory motion in it, synchronous with the beatings of the heart; that it is influenced and increased even in size by coughing and sneezing. It communicates to the hand a soft, woolly feel, and

gentle pressure does not give uneasiness. The edges of the opening in the occipital bone are easily felt through the integuments. The skin enveloping the tumor is thinner in some parts than in others, and somewhat transparent. The whole surface of the hernia has an uneven aspect, just as if the convolutions of the brain caused these inequalities; and that the two posterior lobes of the cerebrum form the chief bulk of the protrusion, seems evident from the position of the tumor, and the even verticle depression which divides it into two equal lateral portions. The head is otherwise complete in its form, the fontanelles have been long since completely closed.

"At birth the tumor was as large as at present. The skin, however, was redder, more transparent, and in many points so thin that it appeared ready to burst and give exit to a pellucid fluid which it evidently contained. In a word it possessed all the characters of the tumor so often seen in the lumbar region, called spina bifida. The child was healthy, but the prognosis given was unfavorable, as we much dreaded that the watery fluid the swelling contained would soon make its exit by an ulcerated opening in the integuments. As the spontaneous bursting of the distended sac at the thinnest part of the tumor seemed inevitable, if it were left to nature, it was agreed that it would be more prudent to make a timely puncture, by means of a small needle into that part of the tumor which was covered by the *thickest* and *soundest* integument, a part of the skin most likely to heal.

"This was accordingly done, and about half an ounce of clear fluid escaped; the sac now became flaccid, and a tumor, the size of a walnut, evidently formed by the posterior lobes of the cerebrum, was found to form the principal part of the protrusion; the small wound was carefully dressed, and the child kept perfectly quiet. No unpleasant symptom whatever followed this trivial operation. The next day, however, to our mortification, the tumor was just as tense and shining as before, and after a few days the puncture was again repeated, and with a similar result. In short, this little operation was performed on this child seven times with a fine needle, and once only with a lancet, and on this occasion alone did the operation *itself* seem to be followed with any fever or unusual restlessness in the infant. Once, however, after the effectual evacuation of the swelling by a simple puncture, it was deemed prudent to give a fair trial to the effects of pressure, which had been

so much extolled by Salleneuve. On this occasion pressure was effected by means of adhesive straps of soap and diachylon plaster, and a tight bandage; but convulsions came on in the night, and bandages and pressure were then removed, and were never afterwards re-applied.

"Under the simple treatment by puncture, the limpid fluid was frequently evacuated, the skin gradually became thicker and better able to support the distending force of the fluid, and as the child grew older, and the brain became consequently firmer, and its membranes less disposed to watery secretion, the intervals at which it became necessary to resort to the operation of puncturing became longer; finally, the quantity of water was so trifling that the operation became no longer necessary. The bulk of the hernia, however, was not diminished by the disappearance of the fluid, for the solid part of the tumor was formed of the brain itself, and probably a small portion of the cerebellum remained behind.

"Mr. Colles and I have examined this child within these few days; its bony and muscular frame are well developed; it is remarkably intelligent, and all its functions are performed with regularity."

In a late number of the "*Gazette des Hospitaux*" there is recorded a most remarkable death, which occurred in the *Charité*, at Paris, from the administration of twelve drops of laudanum by glyster. The *Lancet*, in republishing the case, observes:

"The following case is perfectly without parallel, and is fraught with practical and medico-legal inferences of the highest importance.

"A man named Miolet, æt. 45, of sufficiently good constitution, was admitted to la *Charité* for a stricture of the rectum, and lay at No. 8, in the Salle St. Michael. On Tuesday, the 22d January, cauterization, according to the process of M. Costala, was employed in order to destroy the stricture. The operation gave great pain, but induced no other serious symptom. On the 24th, in order to moderate his dreadful sufferings, M. Rayer prescribed an injection of a decoction of marsh-mallows, and *twelve drops* of the laudanum of Sydenham. This decoction was given at six in the evening, and for some time the patient made no complaint, and during the evening he walked about the ward with the other patients. About nine p. m. he went to bed, and was scarcely laid down when he began to groan a little, and soon after fell asleep. This

state lasted until two hours after midnight, at which time he was unable to answer the questions of the nurse. His intellectual faculties gradually grew weaker and weaker, his powers of sensation diminished, and he fell into a profound coma, from which, however, he appeared occasionally to emerge. In the morning, at M. Rayer's visit, he was found in the following state:

"He lay on his back, plunged in a state of extreme prostration, his limbs absolutely immovable, and in perfect collapse. The skin was covered with an abundant sweat. The eyelids fell, and the pupils were extremely contracted. The respiration was slow, and less than usually extensive, gradually becoming more embarrassed and sobbing. The pulse was very full, amounting to 110 per minute. What was rather rare was, that the urine was secreted in an unusually great quantity, so that his sheets were as wet as if dipped in water. The entire loss of the intellectual faculties, and of motion and perception, complete the description of this state. He was bled immediately to two cupfuls, but immediately after the venesection his pulse still rose, and beat 150 in a minute. Water acidulated with vinegar was introduced almost mechanically into his stomach, and sinapisms were applied to his feet. But all efforts were useless, and he died at about eleven a. m.

"The examination of the body was performed on the 26th, at ten a. m. The superficial cerebral veins, especially of the superior region of the brain, were gorged with thick black blood. The cerebral substance was a little moister than natural, but of natural consistence. There was no serosity in the lateral ventricles. The lateral sinuses were gorged with thick black blood.—Nothing particular on the superior longitudinal sinus, or in the spinal chord. The rectum was cancerous to the extent of two or three inches. Encephaloid matter was observed on the surface of the mucous membrane, and schirrous structure below it. The rest of the intestinal canal was slightly rosy. The mucous membrane of the stomach, however, was of a reddish brown aspect, and at the extremity of the upper surface of the right kidney there was a little cyst containing a serous and whitish fluid. The liver, especially on its upper surface, presented five or six cancerous patches of small extent. In the lungs there were seen nothing but slight congestion."

If this patient actually died from the small dose of laudanum, the case is certainly a *unique* one.

But of this we think there may arise a question. A state of the vessel of the brain, precisely similar, is sometimes found producing apoplexy, where no narcotic has been taken. Orfila states that four grains of opium taken by the rectum has taken away life.* It acts, he says, more strongly on the system when applied through the rectum, than when introduced into the stomach. Cotunnus gives facts of the same kind.

Poisonous changes in Meat and Bread.—A communication of great popular interest has been lately published by M. Chevallier on the poisonous changes which occasionally take place in meat and vegetables, from which we subjoin the following extract :

“I have repeatedly published, in the *Journal de Chimie Medicale*, examples of the ill consequences frequently produced by the consumption of different kinds of meat which have undergone a peculiar decomposition. Convinced that these accidents, though far from being rare, are nevertheless comparatively little attended to, owing perhaps principally to the ignorance of the persons who are generally attacked, I have thought it desirable again to revert to the subject. Moreover, during the recent epidemic, two families have suffered from this description of poisoning. The obnoxious alteration again chiefly affects pork, the consumption of which meat amounts in Paris alone to above eight millions of pounds annually.

“The first set of cases alluded to were those of M. Gr * * *, doctor of medicine, his wife, daughter, and servant. Another case occurred in the practice of M. Brichettau, who, on the 27th of August, was called to see a woman aged about 40, who, during the day, had eaten some slices of bacon purchased from a pork-butcher in the neighborhood. She had suffered from vomiting for several hours. The abdomen was excessively tender. She had frequent stools, with tenesmus, and she complained of general pain. Cataplasms were applied to the abdomen, and she was ordered lavements, diluent drinks, and absolute diet. Notwithstanding this treatment, the patient had that night above fifty stools, and the abdominal pains continued very severe. Leeches were consequently applied, a warm-bath ordered, and the previous treatment continued. In two days the patient recovered. These symptoms at such a time might have readily been attributed to other causes, had not a young woman, who had eaten a very small morsel of the same meat, experienced analogous accidents. And it fur-

ther appeared that a third person had been very ill after eating pork purchased at the same time and place.

“On the 30th of May, 1832, we were directed to institute an official inquiry respecting an occurrence of the same nature, and which gave rise to the subjoined report :

“We, J. Durocher, M. D., J. L. Geeury, M. D., and J. B. Chevallier, chemist, &c., having been directed by the commissary of police to examine a quantity of pork sold by the Sieur L. to a female, who after its use had been affected with vomiting, hypercathasis, &c.; before proceeding to the examination of the meat, we visited the Sieur L., for the purpose of ascertaining whether, if among the meat exposed to sale there was any of bad quality, or partially altered, or any of the same kind supposed to have occasioned the accident in question. We also were anxious to know if the cooking utensils and other vessels were in proper order. We found, accordingly, a dish of pork clippings of disagreeable appearance, and covered with mould, and we observed a vessel of hammered iron used for heating sauces, and the filth of which was absolutely disgusting. The other vessels were also far from being kept with the necessary degree of cleanliness, but they were not dangerous in the least as far as regards impregnations of copper.

Examination of the Meat.

“The meat, a part of which had occasioned the illness of the female, was composed of several pieces cut from a lump of a preparation known in the pork trade by the name of *Italian cheese*, made of mixed fragments, strongly seasoned, and converted into a kind of compact pie, which is sold in slices. The pieces we examined were covered, some with blue and others with green mould, the latter circumstance occasioning a coppery appearance. Having divided a portion into three parts, one was treated with distilled water, and the solution tested by reagents, which proved the absence of any poisonous metal. Another part was treated with distilled water, acidulated with nitric acid; the solution thus obtained was evaporated, the residuum redissolved in water, and tested by reagents, which, as before, gave no indication of any known poison. The last part of the meat was introduced into a new crucible, carbonized and incinerated. The ashes did not contain the least trace of copper. The same experiments repeated on the meat found at the shop of Sieur

* On Poisons, vol. i., p. 148, 157.

...were attended with the same negative results. From these facts, it follows that the meat in question contained no copper, but that it had undergone a marked alteration capable of producing the accidents in question. Nor is this the first example of poisoning by this particular substance. Dr. Paulus, of Saltz, has already related the history of seven persons who became violently ill after eating *Italian cheese*, and of whom three died. In 1824, a family named Plagneard, at Paris, were also very dangerously affected after partaking of a ham pie which contained no metallic poison, but in which the alteration in question had commenced.

A. CHEVALLIER."

The Lancet, in commenting on this report, furnishes some interesting observations on a case of poisoning, which occurred at Hammersmith, near London. These we subjoin.

"About two years since a case of poisoning by mouldy bread happened at Hammersmith, in the family of the beadle of that parish. His wife purchased in the morning a loaf of bread, of which she ate a slice at breakfast. Her son, 20 years of age, ate two slices of the same bread toasted; almost immediately after the meal, both became unwell, and diarrhœa, vomiting, and tenderness of the abdomen, supervened, and several hours elapsed before these symptoms abated. The loaf, a considerable portion of which we obtained, was of a yellowish color. Though baked that morning, and heated for the ordinary length of time, it was sprinkled over with minute fungiform vegetations, the greater number of which were black, a few green, and several yellow. It was soft, wet, inelastic, and so tough that it could be drawn into strings. Its taste was unpleasant, its smell acrid, and it reddened litmus paper when laid upon it. Submitted to a process much more comprehensive than that pursued by the French chemists, the absence of all recognizable poisons, whether mineral or vegetable, was fully ascertained. In the course of the necessary analysis, the circumstance alluded to by M. Lecanu was remarked, namely, that starch afforded a precipitate with the ammonia-co-sulphate of copper, not unlike that occasioned by arsenic; and on examining the nature of the precipitate, it was found that the ammonia alone produced it. Finally, a piece of the bread occasioned analogous symptoms in a dog and cat to those the man and woman suffered from. Sufficient evidence was thus obtained to fix the cause of the accidents on the bread. But the question then arose, was it the minute fungi

constituting the mould which acted as the poison in the manner of other poisonous mushrooms? or, on the other hand, was it the paste itself, which from decomposition had contracted deleterious qualities? The following facts seemed to establish the latter supposition:—Having collected a considerable quantity of the mould, (about five grains,) it was eaten by a person ætat. 22, without the slightest ill consequence, while a small bit of the bread from which the fungi had been separated gave rise to colic pains and tendency to diarrhœa. Further evidence to the same effect was obtained soon after in the following manner:—A quantity of dough was allowed to become mouldy in a moist place. The mould was then carefully removed, and the dough baked into a small loaf. The loaf thus formed had precisely the same physical and poisonous qualities as the Hammersmith bread, while the mould was eaten by a cat, a dog, and by the experimentalist, with perfect impunity. On analysis of the bread, it was found to contain the due proportion of starch, amidine, sugar, and earthy substances, but the gluten had undergone a marked alteration in its proportions.

"These data, may, perhaps, be of use to future experimentalists on this interesting subject."

—*Discovery of a new alkaline principle in opium.*
—At the sitting of the Academy of Sciences on the 24th December, M. PELLETIER announced the discovery in opium of a new crystalline principle, isomeric with morphine, and which he has consequently termed *paramorphine*. This substance differs essentially from morphine in its chemical properties, although its elementary composition appears to be the same. It cannot be confounded with the new principle *codeine*, just discovered by M. ROBIQUET. Its taste is fiery, like that of the anthenus pyrethrum, its solubility in alcohol and ether greater than that of narcotine, from which principle it differs also with respect to fusibility and mode of crystallization. It is possessed of intensely energetic poisonous properties, in very minute doses, and has been found, by M. MAGENDIE, to kill a dog in a few moments.

PROFESSIONAL CORRUPTION.—The highest honors of physic are allotted not to superiority of merit, but to accident of education, and, consequently, collegiate rank is no measure of talents or acquirements. Let eminent station in the profession be the meed of superior merit only, and the highest places would then be filled by those best fitted to adorn them.—*Dr. Barlow, of Bath.*

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A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 24, 1833.

No.

A new periodical, entitled "The Transactions of the Provincial Medical and Surgical Association," has just been published in England. The association has been got up by Dr. Hastings, of Worcester, a distinguished physician, well known to the profession, and already numbers amongst its members some of the most eminent physicians and surgeons in the west of England.

In this volume, there is an interesting case of spina bifida in the adult, by Mr. Dawson, of Liverpool. As the original paper is very long, we give an abridgment of it as published in the 514th No. of the Lancet, July 6, 1833.

"The patient, a lady of great clearness of head and soundness of understanding, had been told that a swelling of about the size of a filbert, had been noticed at the time of her birth, but that it was then considered to be of no importance. It grew with her growth, and had for many years previous to her thirty-eighth year been a source of inconvenience and suffering to her. Whenever its apex was struck or pressed, she felt an oppressive feeling at the top of her head, extending down the neck, as if a nail had been driven through both those regions. For a long period prior to the attempt at an operation, her sense of touch had been more or less imperfect, and she never (as Mr. Dawson also learned after her death,) had in her life possessed the sense of smell. Whether the optic nerves were absent or disorganized, was not ascertained at the post mortem examination. For many years before her death, she had been obliged to rest, when sitting, on the right thigh, to prevent pain in the tumor and at the top of her head, and was always compelled to take scrupulous care against the application of force to the swelling. When

thirty-five or thirty-six years of age, she with an accident which had an important effect on the tumor. Her foot slipped while walking and she fell, the tumor striking the ground with great force. Instantly a most excruciating pain was felt in the occiput. She was then confined to her bed for ten days, and much depletion, extreme cold to the head and nape of the neck were necessary, to abate the extreme heat, throbbing, and pain, in those parts. These measures were occasionally resorted to from that time. Injuries, however slight, to the tumor, always being succeeded by similar though diminished sufferings. It was remarkable that these attacks of pain came on, with few exceptions, every morning immediately after waking, and she was invariably so far relieved from them by eating her breakfast in bed, that, for the rest of the day she could take even active exercise. All these facts, so demonstrable that the tumor was the result of hydro-cephalo-rachitis, were only communicated to Mr. Park and Mr. Dawson at intervals within the first three hours after commencing an operation for removing the tumor. The patient had designedly kept them back, important as they were, lest those gentlemen should decline it. The pain at the back of the head and down the neck was materially lessened on the occurrence by pressing her hands with great force on these regions. Within the last eighteen months the tumor had greatly increased in size and had at last attained the full size of a pomegranate, and ultimately determined her, at all hazards, to have it removed. Three weeks ago, she retired into her bed-room in a moment of irritation, and forced a long needle into the tumor. This inflicted pain, but caused no evacuation of fluid

The swelling lay over the site of the left ischiatic ligaments; it was somewhat conical, had a sound skin; was bound down by some fibres of the gluteus maximus, except at the apex, which was very thin and elastic, and was movable only at its base, when the muscles of the hip were relaxed. On the fifth of October, the patient was laid on the sofa, face downwards, for its removal. It then appeared to the operator to be made up of a fibro-cartilaginous substance, with a little fluid at its point, and unconnected with any source of hazard, though when touched by them an incomprehensible pain was complained of in the head. A fine lancet was inserted into its apex, and twelve ounces of quite clear fluid gushed out. The walls of the sac collapsed deeply below the former external base of the tumor. These were then dragged up towards the wound in the skin, and an attempt was made to clear them out from their connexions, in order to effect the entire removal of a mass which seemed to secrete so much fluid, in order to complete the object of the operation; but the firmness and number of the cellular adhesions rendered this impracticable. Mr. Dawson accordingly writes:

“And now, with the hope of discovering what was within, the connexions and bearings of the tumor in relation to the subjacent structures, I inserted a finger deep within its cavity, and, during this moment of exploration, our patient complained of an oppressive feeling within her head, extending down the neck, as if a nail were driven through both these regions, and which, she stated, was the same she had always felt, whenever the top of the tumor had been struck, or pressed on. But to my dismay, I had already, during this exploration, brief as it was, discovered a narrow neck, extending, about three inches upwards, from the bottom of the sac, and passing, in a direct line towards, and terminating in, the middle of the lowest portion of the sacrum, the middle of which bone readily admitted the end of my little finger. Mr. Park was exceedingly distressed when I announced to him my instant conviction that this was neither more nor less than a variety of bifid spine. It was now but too manifest that I had not only punctured, but even dragged at, the dura-matral envelope of the spinal marrow, which had been protruded through the space which is sometimes left at the point of junction of the os sacrum with the os coccygis; and which process of the dura mater, owing to the gradual impulsion of the accumulating spino-cerebral fluid, had acquired the magnitude already described.

“The patient had been placed on a sofa, and she was under the necessity of remaining in her first posture for some time, for, on the slightest attempt being made to change her position, or even to raise her head, a gasping for breath was instantly brought on, accompanied with a distracting pain at the back part of the head, which extended down the back of the neck; to lessen the agony of which, she pressed both her hands, with all the force which she possessed, on these regions: this pressure afforded her ease and comfort.” * * * *

“It was quite evident that our patient had, for a long time, been laboring under a preternatural secretion, and its results—an accumulation of fluid within the investments of the spinal marrow, as well as within the ventricles of the brain; that these regions were in free and reciprocal communication; that, from the rapid increase which the tumor had more recently undergone, its already attenuated walls, especially at the apex, would, ere long, have given way by erosion, or have been ruptured by a blow; and, in either case, the sudden withdrawal of the long-accustomed compression of the contained fluid, on the brain and spinal marrow, would, in all probability, have been succeeded by a train of fatal symptoms. Whether this mode of reasoning was just or not, we subjoined it to our statement made to her relatives touching the existing peril to our patient's life.”

“The progress of the case is then detailed with minuteness through the subsequent nineteen days. We shall confine our enumerations from the report to the more striking pathological facts. Just after the operation, a brief neuralgic attack, spreading from behind the ear over the face, was experienced. The patient gasped constantly for fresh air, and stimulants were demanded to avert fainting. For an hour there was a copious flow of clear fluid from the wound; the pulse was quite healthy. Efforts to raise the head produced for three days violent throbbing and slight nausea, and on the third day stiffness of the neck, and a degree of opisthotonos. Abundant fluid from the wound. No rigidity of the muscles of the jaw, nor want of voluntary power of feeling in the lower limbs. The urine on the fifth day increased, and was often voided, but immediately afterwards a “want of support” was felt in the region of the sacrum. Indeed, throughout, the emptiness of the bladder deprived her of a degree of support and comfort quite inexplicable to her. Relief of the bowels usually produced faintness, sickness, and pain within the head. At

about the 7th day, the urine began to be expelled with difficulty, but there was less rigidity in the neck and retraction of the head, which was now moved without inconvenience. The drain from the wound also lessened, but the wound itself began to be hot and sore, from lying thereon for twenty-four hours. The bad symptoms then increased daily, and on the 14th day the following is the report :

“ ‘A sleepless night in spite of 130 drops of laudanum, given in divided doses. But the frequent calls to pass urine harassed her exceedingly; and, sometimes, the attempt to empty the bladder was a failure. The bowels have not been opened since yesterday morning. There is nausea, but no vomiting; the pulse is 130. Her hands are cold, and her countenance is collapsed. She is perpetually sighing deeply. The integuments around the wound are flaccid, and the faint odor peculiar to bone when exposed, is perceived in the discharge from the wound; the wound itself is beset with shreds of cellular membrane, in a sloughy state. At our evening visit we found the bladder full of urine, although a few hours before more than half a pint had been voided at one time. She now consented to have the catheter introduced, and upwards of a quart of urine came away; great relief was thus afforded her. The head is again drawn backward, and more decidedly so than of late; there is also a threatening of the stiffness of the muscles of the neck again; it did not increase however. The tongue trembles when it is exposed; it is not loaded, but it has an unhealthy appearance. The thirst is urgent; the skin is cool; pulse 130.’

“ ‘On the 16th and 19th days the narrator says :

“ ‘The restlessness and anxiety are quite gone. She expresses herself in terms of cheerfulness, says that she is very comfortable, and free from pain everywhere. She has described to us, to-day, a remarkable circumstance. Upon our attempting, gradually and quietly, to bring the head forward, and at the same time to depress the chin, (which may be effected without pain, when slowly managed,) she says that she hears a gurgling sound, as if fluid were flowing somewhere within her head. The attempt was repeatedly made by us, and was followed by this sensation. Her exact words were, ‘that it gave her a sensation like the pouring out of a fluid from a bottle into a basin, and produced a sound of gurgling.’ Her urine was again drawn off, which was loaded with bile; has had several dark-colored stools. She had sat up for two

hours, and felt herself better. The wound is still sloughy, but there is something like pus in it.

“ ‘19th day.—She has passed a very restless night; the bowels were emptied by means of an injection. A new feeling is now described in the head; there is no pain of a distinct character, but our patient has an impression as if the head were divided, or split in two. This has not disabled her from moving her head in any direction she chooses, nor from allowing others to do it, provided the movement be slow and gentle. The perception of fluctuation within the head is quite gone. Her mind is clear and strong. There has been more decided pain along the sacrum to-day. Throughout the afternoon of this day she was feverish; had been four times smartly purged, and then fell asleep; and, at five o’clock, was awaked with a profuse bleeding from the nose. At eight o’clock, Dr. Rutter saw her, when he ascertained that more than twelve ounces of blood had been lost. Dr. Rutter plugged the nostrils himself, and further loss of blood was thus prevented. This attack greatly exhausted her; indeed she never recovered from it. * * * The pulse became more and more indistinct, until a quarter before eleven o’clock, at which time she was seized with a general convulsion, and at eleven she quietly expired.

“ ‘*Post mortem examination of the Head and Spine, fifteen hours after death, with remarks, (Abridged.)*

“ ‘*Bony Canal and Chord.*—Canal opened from top to bottom. An abundant effusion of dark-colored blood followed the track of the saw during the division of the vertebral arches; cells exposed by the division of the roots of the transverse processes all loaded and impurpled by it. The space which exists between the ligamentary tube, (which connects the vertebræ internally, and forms a lining to the spinal canal,) and the “theca” itself (connected by cellular membrane only,) in part occupied with a purulent fluid of dark leaden hue or slate color, and of a very offensive odor. The “theca” was, therefore, almost altogether detached from the ligamentary tube that enclosed it, and had subsided into a loose longitudinal fold, partaking of the dark lead color in which it must have been for sometime macerating. The unusual space thus left did not appear to be owing to any wasting of the substance of the chord, but to the complete destruction of every portion of cellular structure within the spinal cavity. The natural outlet of the os sacrum was rough and blacken-

ed, and the proper cavity of that bone was denuded of its naturally dense lining, and in its place a putrid sanies and a few shreds of fibrous bands only remained. The sacral nerves were deeply discolored by the same product.

“Several minute perforations in the walls of the sheath, and two gangrenous patches three inches apart, one at the eighth dorsal vertebra, the size of a shilling, the lower one implicating the entire cylinder. The immediate covering of the substance of the chord was unusually firm, although changed in color. When slit open, the component parts of the chord immediately rolled out, in the form of small, flat, detached flakes, not unlike the compressed curd of milk, but less white. The bundles of nerves which emerged at these points were of a deep purple tinge; their interior roots distinctly fibrous: the ganglionic structure, forming their posterior roots, crumbled in the fingers.

“*The Brain and Membranes.*—The arachnoid surface of the dura mater dull and greyish; the arachnoid opaque and elevated; globules of air and water were enclosed within the veins of the pia mater. The convolutions of the brain slightly flattened and collapsed, the interior of the cerebral mass presented a uniformly dull yellow color, much softened and diffuent on the slightest disturbance. The lateral ventricles were empty and flaccid, but of a more than ordinary capacity in them; the inferior cornu, on each side, very ample; the choroid plexus of a greyish tinge, coiled up and bloodless; the fornix and its processes had scarcely any distinctive form left.—The cerebellum, pons, crura, and beginning of the spinal chord, were all, more or less, tinged and softened. The encephalic nerves appeared to have defied the destructive progress.

“*Remarks.*—The neck of the sac had taken a direction outwards from its point of emergence at the termination of the os sacrum, and for a distance of three inches. This lateral course had been influenced, probably, by the direction chiefly of the fibres composing the sacro-sciatic ligament, until, having reached a point of diminished resistance, viz., among the lax fasciculi of the glutæus maximus muscle, it had become expanded into a bulging tumor, which, including its long neck, bore a near resemblance to a Florence oil flask. I believe this is the only instance on record in which the membranes of the spinal chord have been found prolonged, through what may be considered (from its frequent occurrence) a natural aperture at the termination of the sacral cavity on its posterior aspect.

“In this instance, the bony structure was not imperfect, and my impression is that the spinal chord itself had been perfectly developed in the present instance, but that hydro-cephalo-rachis existed at the time of birth.

“One emphatic fact is disclosed by the dissection of this case, viz., that no accurate opinion can be formed of the degree of organic lesion suffered in any given instance, by the degree or the duration of the functional disturbance present. In this instance there was not more functional disturbance present than is often met with in cases of hysteria; while the examination unfolded an extent of actual disorganization of the nervous centre, of a most appalling character; to such an extent, indeed, as might have been believed to be not only incompatible with the exercise of voluntary power, but with life. There was no paralysis of the lower extremities, nor of the sphincters.”

The following interesting observations on self-murder are taken from a lecture lately delivered in the University of Paris, by M. Andral, D. M. P. on *monomania*.

“The tendency to suicide, though forming a very characteristic monomania, and though existing also, to a prominent degree, in many cases of confirmed madness, must not, however, be regarded exclusively in this manner. Under many circumstances this disposition should doubtless be regarded as the simple result of certain directions of the intelligence in relation to prevalent institutions and customs. In ancient times, under the operation of pagan notions and peculiar civil circumstances, such as those of republican Rome, the frequent, the constant commission of suicide, was not the effect of monomania. At the present day, again, in many countries of inferior degrees of civilization, we find the practice prevalent, and we readily trace its cause to the influence of particular religious or social opinions. In India, the widow, in full possession of mental and organic health, ascends, of her own free will, the burning pile of her husband. In the same country there is a temple, that of the idol Jugernaut, where, at the annual sacrifices, multitudes of devotees eagerly fling themselves under the ponderous wheels of the chariot of the idol, and expire in the most fearful tortures. Others, again, as eagerly seek self-destruction in the sacred waters of the Ganges. Now all this is not monomania. It depends on the operation of totally different causes.

"It is, again, to be distinguished from the suicides which occur during violent excitements of unruly temper, a state more allied to mania. Neither is it true monomania, when it occurs in persons previously mad, and in whom the operation of certain motives may occasionally be detected. I now turn to the true monomaniac. Sometimes we find him tormented by a predominant monopolizing conviction of the necessity for self-immolation, or urged to it by perpetual hallucinations, by the desire to escape the pursuit of hideous spectres or other imaginary objects, among which the *agents of the police* sometimes hold a foremost rank. Again, the aberration is often the effect of certain philosophical tendencies, themselves perhaps totally opposed to each other. The *materialist*, when tormented by care or misery, delusive or real, seeks in suicide a repose which his tenets persuade him to be eternal. The *spiritualist*, on the other hand, if his notions be not influenced and counterbalanced by the principles of christianity, not unfrequently has recourse to suicide as the shortest route towards extreme and immortal felicity. The latter impulse, namely, that of exaggerated or perverted spirituality, is shown by numerous facts and calculations, to act much more frequently than the former. Who has not heard of the strange societies and associations in Germany—the land of spiritualism—for the mutual encouragement of self-murder? I had myself a young acquaintance, a youth of brilliant promise, surrounded by every circumstance conducive to happiness. In an evil hour Plato fell into his hands, it became his constant study and contemplation, until at length, bewildered by the sublime conceptions of the author, every link that bound him to society was severed, and suicide was the sad result. Other species of monomania tend, by a natural transition, to pass into this. That which has been called melancholy, for example, the "*spleen*" of the English, the "*ennui*" of the French, the "*tedium vite*" of the Romans, all these are of this description. Frequently the tendency seems connected with, or preceded by functional or organic disease, independently of any moral reason. M. Esquirol describes a case of an individual who very suddenly, and without any assignable motive, fell into this state, at the same time complaining of uneasiness of the head and epigastric pain. At other times complaints and symptoms arise, nearly the same as in hypochondriasis, but with this grand distinction, that while in the latter the delusive diseases prompt the patient to additional fondness for life, in the aberration of

which I now speak, it urges him vehemently towards self-destruction. He becomes indifferent to all the affections of life, he repudiates his duties; deserts society for solitude; shunning least exertion; every act, however trifling, every writing of a letter, is avoided with apprehension. But what constitutes one of the peculiarities of this state is, that the individual thus affected has a consciousness of his own condition. He wishes to exert himself, but every attempt unsuccessful; he feels and knows that he is different from other men, and he consequently sinks into the profoundest mental courage.

"Sometimes the malady is but transitory, other times permanent; occasionally intermittent or it may alternate with mania, as in cases Esquirol has described.

"While in a multitude of cases some apparent motive may be traced for this tendency, others, and in a far minor number, no known cause can be discovered. An unaccountable but overruling disposition, urges to self-murder as in others it does to the commission of homicide. The tendency to this aberration may exist, too, in individuals in a perfect state of intellect. There are many men, perfectly rational and completely undisturbed by care or pain, who, singular to state, have been suddenly seized with a headlong, groundless inclination to destroy themselves. There are hundreds who cannot approach the brink of a cliff, or ascend a lofty tower, without experiencing an almost insupportable desire to precipitate themselves to the bottom, from which fate they only save themselves by an instantaneous effort to retire from temptation. I know a gentleman who, when shaving himself one day alone, was three times vehemently urged to plunge the razor into his throat, that he was at length compelled to throw the instrument from him in absolute horror and dismay. In rational men, however, these trying and dangerous moments, are but of very short duration.

"Another source of suicidal monomania is the perversion of the natural instinct of imitation, which I alluded in a previous lecture, a perversion which clothes suicide with an epidemic form and constitutes one of the most extraordinary points in the history of humanity. Having, on that occasion, mentioned some singular examples of the occurrence in question, it becomes unnecessary to repeat them here.

"The moral circumstances which predispose to suicide, or act as its occasional causes, form

of much interest for the consideration of physician. I have here a work containing a body of facts and statistical calculations dating this point. The number of cases are great, as to afford very satisfactory conclusions. They are collected by M. Falleraie, and detail the record of the police of Paris, for a period of several years. Of 6782 suicides, there are occasioned by

Disappointed love*.....	254
Jealousy.....	92
Humiliated self-love.....	53
Grief.....	120
Remorse for misdeeds.....	49
Lighted ambition.....	122
Reversal of fortune.....	322
Gambling.....	155
General bad conduct.....	1287
Domestic chagrin.....	723
Misery.....	905
Misanthropy.....	3

The causes in the remaining numbers were ascertained.

Suicide, as might be expected, is more frequent in towns than in the country. In Prussia, Esquirol has computed that, while in the towns the proportion of suicide was 14 in 100,000, in the country it was but 4 to the same number. Esquirol, and many other authors, entertain no doubt that onanism, when carried to excess, leads to this aberration. The abuse of spirituous liquors is another. Certain physiological conditions, too, have a great influence upon it. Several females while pregnant, others at the recurrence of the menstrual period, can scarcely be kept from destroying themselves. Different ages, again, are differently visited. It might be supposed that as old age increased, and as the charms and value of life diminished, there might be a greater tendency to abandon it by the commission of suicide. The contrary, however, is the fact. In a number of cases collected by Falleraie, the great majority were aged between 30 and 45 years. Before 20 and after 60 it is very rare. There are, I know, examples of suicide among children. There is one at 10, one or two at 13, and so on. There is also a case aged 87; and you are aware of the history of the veteran professor who killed himself at Montpellier. The sexes also differ in this respect. In France men commit suicide in the proportion of 3 to 1 female. In some countries, however, this is reversed. With respect to the civil state, it appears from Falleraie's calculations, that two of

three are not married; among the married, in 1695 cases, there were 960 men, and 735 women. Hereditary disposition is another unequivocal agent. In the *Annales des Sciences*, there is the account of the destruction by suicide of an entire family. Falleraie relates the cases of a father, son, and uncle, committing suicide nearly simultaneously, while another member of the family, when viewing the bodies, could scarcely control his urgent desire to follow the example before him. The celebrated American physician, Dr. Rush, cites the histories of two officers in the American army, both men of determined courage, of close personal resemblance, of cheerful disposition, the sons of a gentleman who died by his own hand. They had two sisters in a state of mental alienation, and the mother was also irrational. One of the brothers was sent to the National Congress at Vermont; he proceeded in good spirits on his mission, and was absent but a few days, when he blew his brains out with a pistol. About the same time the other brother, without any obvious cause, put an end to his existence by cutting his throat.

“Various other circumstances, such as season, temperature, popular religion, &c., also operate as influencing or counteracting causes. In Paris, according to Falleraie, the greatest number of suicides occurred from April to August inclusive. Other researches, conducted by the Council of Health, led to similar conclusions. Thus, between 1817 and 1826, of 3460 cases, three-fourths occurred in spring and summer. M. Esquirol has also come to the same conclusion, and calculations at Marsilles agree with the preceding indications. In the lunatic asylums, the number of attempts at suicide is always greatest in summer. On the whole, these facts are sufficient at any rate to destroy the poetical ideas which associated the suicidal tendency with gloomy and depressing weather. As for different countries, here also there are some facts presented which are worthy of record. In France, England, and Germany, suicide is frequent, while it is rare in Spain, Italy, and Prussia. By the latter group we perceive that similar results take place in opposite temperatures and climates. We must look for the cause then rather in the social habits and peculiar institutions of each nation. Take Italy for example; during the time of the republic, and under the dogmas of heathenism, suicide was of constant occurrence, was, in fact, a national characteristic, and ranked with the Roman virtues. In modern Italy, on the other hand, the occurrence is very rare,

* Of these 157 were females.

perhaps owing to the strong operation of a religion which, above all others, opposes itself to the commission of self-destruction.

"Not the least singular feature in the history of suicide, is its occasional rapid increase in particular places. So extraordinarily prevalent at our time had suicide become at Berlin, that calculations were made to investigate its rate of progress in different periods. This computation was made by Dr. Casper, with the astonishing result that while, during the seventeen years following 1758, there was but one suicide in 1800 deaths, in the twelve years following 1787 there was one in 900; in the twelve years from 1799 one in 600; after which the practice became, for a period, so singularly prevalent, that in Berlin alone, the deaths by self-murder were one per cent. of the total mortality."

"Some experiments which seem to promise results of considerable interest and practical importance in medicine, are at present being pursued in certain of the metropolitan hospitals, on patients afflicted with neuralgia, tic-douloureux, tooth-ache, and other immediate affections of the nerves. We allude to the application of a magnet to the parts suffering pain from those diseases. We abstain from communicating to our readers at present any thing more on the subject than we have had satisfactory means of ascertaining to be rigidly exact on the score of truth. Three instances only have, in fact, as yet occurred under circumstances which enable us to speak without hesitation of the power possessed by the instrument alluded to, over diseases of the human frame. These we shall give, observing, that the employment of the magnet has nothing to do with the art denominated "animal magnetism."

"Our readers will remember the interesting case of neuralgia of the finger at St. Thomas' Hospital, upon which Dr. ELLIOTSON stated in a clinical lecture, reported in our 484th No., that he had exhausted his store of remedial agents, without developing a shade of improvement. A more severe case, probably, was never subjected to treatment. The man left the hospital for a time, totally unrelieved, but soon afterwards returned, when, in accordance with a suggestion, as Dr. ELLIOTSON has since observed in one of his clinical lectures, of a correspondent of this Journal, the *colchicum autumnale* was tried in the case, without, however, the slightest benefit being derived there-

from. The sedative powers of the *lobelia* in then suggested to the Doctor the propriety of giving the patient the chance of that medicine. The grounds on which it was employed proved to be in a great measure correct. The man took the lobelia, in increasing doses, every hour, beginning with six drops of the tincture, and adding a drop to the progressive dose, until as large a quantity had been reached as could be taken without deranging the functions of the stomach. Gradual amelioration of the affection followed this treatment. The patient, who was before unable even to cross the ward, or bear the slightest touching of his finger-nails, and had become excited to the extremest degree, from pain and sleeplessness, was soon enabled to walk out of doors, and enjoy many hours of rest, recovered his good looks, and became comparatively cheerful.

"The relief, however, was very far from being either perfect or permanent. The continued exhibition of the medicine was demanded to secure any portion of rest.

"A short time since, however, a new remedial agent presented itself, in the form of a magnet. The hospital was visited by (we believe) Dr. KYLE first, and subsequently by a physician of the name of BLUNDELL, a friend of the former gentleman, who followed up the application begun by Dr. KYLE. The lobelia flata was allowed by Dr. ELLIOTSON to be suspended, and the effect of the magnet tried. That effect was, we learn, a very decided one; the pain was, on every application of the instrument, removed, and continued absent several hours. The distance however at which the operator resided from the hospital, prevented and still prevents the daily use of the instrument, or, the impression on the patient's mind is, that it would perform a cure.

"On Tuesday last, the Dr. BLUNDELL already mentioned, re-attended the hospital, at the invitation of Dr. ELLIOTSON's visit, when, in the presence of the pupils and our reporter, he drew forth the magnet, and commenced its application to the patient's finger.

"The instrument is of the horse-shoe form, about ten inches in its long axis, and five inches short, composed of five layers of metal, the central being the longest, and the whole bound with stout riband. The patient was at that time apparently suffering considerable pain, and unable to use his hand. The north pole of the magnet was gently passed five or six times

the sides and back of the middle finger, then rested on the central joint. The result was, such a cessation of suffering, that he gnash his fingers into the palm of his hand with ease and comfort, and he declared himself to be entirely relieved. The power of the instrument, however, did not cease.

Dr. BLUNDELL showed that it possesses the means of reproducing the pain in the most intense form. The *south* pole of the magnet was directed along the finger. At the third pass the patient began to bite his lip, and close his eyes with an expression of pain. At a few seconds more his chin was involuntarily buried in his breast, and his wrinkled features evinced the most acute suffering. This was allowed to continue for a few seconds, when the *north* pole was again presented to the finger, and the agony speedily subsided. The spectators then turned to the man with a countenance perfectly tranquil.

At the extremity of the ward lay an elderly woman, a martyr to *tic-douloureux* in the lower jaw, extending to the ear, and affecting a large portion of the head. The disease, she said, was of more than nine years duration, and had never ceased to afflict her for a day during that period, up to her entrance into the hospital. Her appearance was proportionably miserable. The magnet had also been applied to her ear, and with similar advantage, as she said. On the present occasion it was found, on approaching her bed, that she was that moment free from pain, and the aid of the magnet was not needed. "But cannot you show its power by producing the pain?" inquired a by-stander. The suggestion was acted on. The *south* pole of the magnet was passed from the centre of the chin along the lower jaw-bone to the ear. At the third pass the poor woman indicated that the *tic* was commencing, and in a few seconds more the affection was experienced intensely. The process was then stopped, as the experiment was carried far enough to satisfy all present of its consummation, and after a brief space the presentation of the *north* pole wholly freed the sufferer from pain. The operator subsequently stated that by continuing the passes he could have carried the pain on to the production of delirium.

"There is a female patient in another ward who had suffered intense tooth-ache for three months, when, a fortnight since, according to her own evidence, which we have no reason to doubt, it was instantly cured by one application of the

magnet through the medium of a key, and had not returned in the slightest degree up to the period of the visit on Tuesday last.

"These are very interesting facts. We present them to our readers unaccompanied by comment. The specific name given to his instrument by Dr. BLUNDELL, is that of "mineral magnet." How far its application to disease admits of extension, we are at present ignorant."

We have reprinted, verbatim, the above observations of the Editor of the *Lancet*, on Dr. Blundell's cases, where the magnet was employed as a remedy for the cure of severe neuralgic affections. We confess, when we read them, we were not disposed to agree with our contemporary in believing that the application of the magnet had really relieved the patients, as it appeared to do. We were persuaded that there was some trick in the business, and, by the July No. of Johnston's "*Medico-Chirurgical Review*," we find our suspicions were not unfounded, it having been since ascertained that the operator finds it necessary, before he operates, to give each of his patients *privately* a silver half crown. Silver, we have long known, is a most powerful agent in remedying both moral and physical ailments, and we would strongly recommend to those members of the profession who have more faith than ourselves, and who may be disposed to employ the magnet, not to forget the half crown, or a half dollar, which will answer equally well.

It may appear strange that as we ridicule the remedial power of the magnet, that we should have occupied our pages with a notice of it.—The object of this Journal is to keep the profession informed on *all* subjects connected with their profession; and as these cases have excited considerable attention, and, as we are informed, have induced some American physicians to *magnetize* their patients, we could not refuse noticing them. That many *malades imaginaires* will be benefited by the application of magnets, we have no doubt. Who has not heard of the miraculous cures which Perkins performed with his "*metallic tractors*?" And as far as we can discover, Dr. Blundell's magnet is just as good an instrument, and not one whit better. Should any of our readers wish to make an experiment with the magnet, we would recommend them to employ it with great gravity. The whole art of *hocus pocus* is annihilated, if the operator does not operate with becoming gravity and ceremony. Be careful, therefore, in using the magnet, to apply the *north* pole, and be sure you do not neglect to impress on the mind of your patient the *immense*

importance of your not applying the south one. Recollect the story of the Hampshire farmer, who, having restored sight to a number of the blind, and activity to a number of halt and maimed, by the simple application of instruments supposed to be *Perkins' tractors*, had all his cures destroyed, and those who now saw, and those who now danced, rendered again "stone blind" and "dead lame," by merely calling forward his cook and blacksmith; the former to testify that she gave her gridiron to the smith, and the latter to prove that he made the instruments which had exercised such miraculous powers out of the identical cooking utensil which, for years, had been employed in the humble office of dressing beef-steaks.

Being occupied with the wonderful, we subjoin a case observed at Bologna by M. M. Carini and J. Visconti, and by M. Mazzacorati, and communicated to the "*Gazette Medicale de Paris*" by M. Orioli.

"*History of the case.*—A young female, æt. 25, after experiencing profound grief, was thrown into a state of extreme moral and physical susceptibility, and, on the 10th September, 1832, had an attack of catalepsy, which lasted from midday to midnight. During forty-two successive days, this access returned at the same hour, with the same symptoms, and without any variation, except during the last twelve days. Thus it commenced and ended by sighs and yawnings, which were, moreover, more marked at the termination. But during the last twelve days, the duration of the cataleptic period was diminished, and its approaching termination announced itself by the occurrence of certain movements, isochronous in themselves, and executed, and succeeding each other with the most precise regularity. The patient successively lifted up the left arm and right arm, the right foot and the left foot, and then let them subside heavily. She shook her head, elevated both hands, leant them on the bed, assumed the sitting posture, and then fell back by her own weight. Again, she carried her hands to her head, rubbed her hair, and put on a gloomy and menacing aspect. Lastly, there supervened some convulsive movements, and she then awoke without retaining any recollection of what had happened during the cataleptic sleep, and without complaining of any pain or uneasy feeling about the heart.

"While the period lasted, she was as if paralyzed, unable to execute any movement with the exception of those described. She retained

perfectly all the positions given her, however strange or embarrassing. The body was, moreover, altogether insensible even to the most intense and painful physical impressions.

"During the first twenty-one days the eyes were completely shut. In the second period the disease she opened them, but she kept them constantly motionless, turned towards the light insensible to all the impressions sought to be communicated to them.

"M. Mazzacorati soon perceived that some singular faculties were developed in the patient during this state, and, in concert with M. Carini he tried a series of experiments, the marvellous results of which we shall detail in the following order:

"*Phenomena of condition.*—The patient heard no sound, however loud, which reached her by the ears; but if she was spoken to, even in the lowest whisper, directed on the hollow of the hand, or sole of the foot—on the pit of the stomach, or along the traject of the sympathetic nerve, she heard perfectly the words addressed to her. It was the same if, while speaking to her in a whisper, the speaker applied her hand to any of the places above-mentioned. But, stranger still, she heard also when the person addressing her was only in distant mediate communication with the surface of the body. Amid a crowd of experiments which leave no doubt of this fact, it will suffice to mention one in which the chain was of four persons, three of whom held each other's hands, and the fourth communicated with the third by the interposition of a very long wax-taper; the first of the chain, meanwhile, being the only person touching the patient. Under these circumstances, she heard perfectly the whispers of the fourth person pronounced at a considerable distance.

"*Phenomena of speech.*—The patient, when left to herself, kept constant silence, but when interrogated in the manner above mentioned, she answered with perfect propriety, always making use of the tone of voice of her questioner. If, during her answer, the immediate contact was broken, or the chain interrupted, she stopped suddenly, but the instant the communication was re-established, she finished her discourse, with this remarkable circumstance, that she took it up at the point where it would have arrived had there been no interruption. It seems then that the answer was combined in her mind even while the external connexions were suspended, and that during this suspension the vocal organs became paralysed. During the second period of

the disease—that is to say, after the 22d day, she lost the faculty of articulating sounds, but even when some answers were occasionally obtained. At first, during a few days, she signified that she heard, by answering with a weak laryngeal sound; but, finally, this mode of communication became impossible, and she substituted for it a scarcely sensible pressure of the tips of her fingers on the hand of the interrogator, or the first person of the chain.

“Phenomena of Natural or Magnetic Vision.”—With her eyes closed, or even bandaged, she recognized things, and *their colors*, when placed on the regions where this special sensibility existed. She pointed out to the instant the hours and minutes on every watch. She often, but not always, succeeded in reading words written on paper. Later in the disease this facility became still more prodigiously developed. It sufficed to call her attention to any object placed in her room, or *the next room*, or *in the street*, or *out of the town*, or *even at enormous distances*, to have it described by her as perfectly as if she saw it with her eyes. The following are some experiments sufficient to prove this assertion.

“In presence of a celebrated professor of the University, it was agreed to ask her to describe a convent in the town, into which neither herself nor any of her interrogators had ever entered. Next to describe a cellar in a country house, equally unknown to the questioners. According to the descriptions she gave, plans were designed, and, on the places being visited, they were found to correspond perfectly with the design made by her dictation. She even pointed out the number and position of some barrels in the cellar. In the same sitting, the professor questioned her respecting the arrangement of his study. Her answers were of the most perfect exactitude. The following questions and answers, for example, are extracted from the notes taken on the occasion.

Q. What is in such a corner?

A. A table.

Q. And on the table?

A. A book.

Q. And on the book?

A. A skull.

Q. Of what?

A. Of an animal.

Q. Of what animal?

A. I don't know its name, but if you pronounce it among many others, I can tell you.

“In fact on mentioning the names of many animals, she allowed several to pass, and instantly

stopped at the panther, to which animal the skull actually belonged. It is remarkable, with respect to names of things and persons unknown to her, that she always pursued the same manner, and thus obtained an almost intuitive knowledge thereof.

“She described also, with the same facility, the healthy and diseased parts of her own person, and of other individuals. The professor already mentioned subjected her to an anatomical examination, sometimes in Latin, a language of which she was perfectly ignorant; and sometimes in Italian, but always using scientific nomenclature. He obtained in reply most exact descriptions, in Italian, of the heart and its appendages, the solar plexus, the pancreas, the first vertebra or atlas, the mastoid apophysis, &c. She also gave precise notions respecting the pathological state of a lady she did not know. After this the reader will scarcely be astonished when we add, that she described, with equal facility, places pointed out to her in Rome, Paris, and Naples.

“During the period in which her eyes remained open, and her pupils motionless and turned towards the light, the experimentalists believed that they observed that the optic axis had become electrometers of prodigious sensibility, since they turned constantly and immediately to the side where the smallest friction was exercised capable of producing electric tension. They thus perceived electric operations performing in an adjacent room. Finally, they followed, like a magnetized needle, the movements of a magnetic bar behind the patient's head, or even at the other side of a wall.

“Phenomena of Smell and Taste.”—Odorous substances were distinguished by the patient with the same promptitude and precision. At the moment they were placed on the sensitive regions, she named them, or, if she had no previous knowledge of the name of the substance applied, she recognized the name among many others pronounced before her.

“The *touch* offered analogous qualities. When a substance was placed on a sensitive region, she recognised it as perfectly as could be done by the most delicate hand.

“The *intellect*, sufficiently acute in its natural state, was much more so during the cataleptic access. Although she was acquainted only with the four rules of arithmetic, she succeeded, under the cataleptic influence, in extracting several roots of numbers; amongst others, that of the number 4965. However, this experiment was not invariably successful; she exposed with much

lucidity several philosophical systems, and discussed others proposed to her. She discovered and described the phases of her own disease.

"At present the patient is perfectly cured, having had recourse to no remedy whatever, but the cataleptic access can be now voluntarily reproduced and terminated. She has pointed out means by which analogous phenomena may be occasioned in other persons. The observers propose to make known all these discoveries in a work they are preparing on the subject."

The Editor of the *Lancet*, who reports this case from the French Journal, actually appears to believe in the fact detailed. "*It bears about it*," he observes, "*all the signs of veracity, of observation*," &c.; and then goes on to argue that the "*light in which the facts must be viewed is, that the existence of a nervous state is proved in which new faculties of perception are developed*," &c. &c. Verily! the minds even of sensible men are found occasionally to combine strange contradictions. Here we have the editor of the "*LANCET*" admitting his faith in a young female who never saw a subject dissected, nor ever read an anatomical description, becoming, from the mysterious operation of animal magnetism, a profound anatomist; speaking in the Latin language, of which she had been previously ignorant; becoming acquainted with the pathological state of a lady of whom she knew nothing, and whom she had never seen; and of having, through the influence of the same mysterious agent, the power of her vision so prodigiously developed, that neither distance nor mechanical obstruction could resist its penetration. Surely the man who believes all this may believe any thing, and is scarcely entitled to quarrel with the credulity of others. Yet Mr. Wakely, immediately on announcing his faith in the truth of these absurdities, in his very next article observes: "*The human infant in the cod's stomach is only a miniature version of Jonah in the whale's belly, adapted to the capacity of children*"!!! In our opinion, it requires not one tythe the credulity to believe in the possibility of a morbid growth in the stomach of a cod, which may have a fanciful resemblance to the human foetus, that it does to credit the absurd story about the young woman of Bologna. Were the truth of the story of "Jonah in the whale's belly" to rest on the authority of an Italian professor, we most certainly would not believe it, although we think that the possibility of such an occurrence is just as probable as that of the miraculous powers of M. M. Carini and Visconti's patient. To be-

lieve in a miracle, the truth of which is established by a divine revelation, is, according to the editor of the *Lancet*, to evince the capacity of a child; but to believe in a much more wonderful miracle, the truth of which rests solely on the statement of three Italian physicians, is evidence of your being a man of science!!!

We are not disposed to accuse M. M. Carini, Visconti, and Mazzaeorati, of deliberate falsehood, and of a desire to impose on the profession.—They themselves have been the dupes. A case somewhat similar, as our readers may recollect, occurred about fifteen years ago in Liverpool, which occupied much attention, and attracted visitors from a great distance to examine it. The simulation was so excellent, and the trick so admirably managed, that the miracle was credited by some very clever men, and books detailing the facts published, with their attestation. Ultimately, however, the hoax was discovered, and those who had believed in the young lady seeing through stone walls, heartily ridiculed it. The same thing, we have no doubt will occur at Bologna.

Several interesting reports have lately been published in Paris, which contain curious statistical researches as to the progress of malignant cholera in that capital. The facts which they contain might be adduced, were additional facts necessary, to prove the non-contagious character of the disease. We give some of the more interesting results.

"The first of the detached essays before us is a 'History of the Cholera in the Quarter of the Luxembourg,' by M. BOULAY, President of the Sanitary Commission of the district, from which we cull the following numerical statements:—

"The population of the quarter amounts to 20,862 inhabitants,—10,436 men, 10,426 women, of whom there are 7,532 paupers.

"The number of deaths by cholera during the first epidemic, (up to the 13th May,) were 406, of whom 176 were males, 230 females. The mortality was consequently a fourth greater among the women.

"The number of spacious streets is 51, population 12,404, deaths 171, or 1 in 72½.

"The number of close and dirty streets 16, population 8,458, deaths 235, or 1 in 36, more than double the mortality in the well-ventilated situations. A further proof of the occurrence of this event is to be found in the following facts:—

"In the barrack of the municipal guard, Rue de Tournou, the mortality was 1 in 144; in that of

the dragoons, Rue de Vaugirard, 1 in 122: and 1 26 $\frac{3}{4}$ in the quarters of the sappers and miners in the filthy street of Le Vieux Colombier.

"The population of the quarter, again, consisted of two great classes, viz., 13,330 above want, and 7,532 in a state of indigence. In the former there were 152 deaths, or, 1 in 87 $\frac{2}{3}$. In the latter 54, that is 1 in 29 $\frac{2}{3}$. The poor, therefore, suffered more, in the ratio of 3 to 1.

"The second memoir is by M. TACHERON, and extends to the entire of the 11 arrondissement, containing a population of 50,636 persons, of whom, during the months of April, May, June, July, and August, the cholera swept away 1,200 persons. Among the males (25,012) there were 604 deaths; of the females (25,624) the mortality was 643. Of the different ages of the victims the mortality was least between 15 and 20, and from this increase up to 80 years.

It is a remarkable fact, that instead of the diminution of mortality from other diseases, pretended to occur during the prevalence of cholera, the precisely contrary fact is proved to have been the case in Paris. Thus, in ordinary years, the deaths in the month of April amount in Paris to from 1,400 to 1,500 persons. In 1832, independently of cholera, the mortality from other diseases reached the cipher of 3,400. It should be remembered, too, that there was no shifting the blame of deceases from cholera to consumption, inflammation of the bowels, &c., &c., in Paris, as in London. It was, on the contrary, thought rather a creditable thing. It partook of martyrdom. It procured the insertion of the name of the deceased in the morning papers. In fact it was the fashion to die of cholera, like the rest of your acquaintances."

The fact of the mortality from other diseases having greatly increased during the prevalence of the cholera in Paris, is certainly a remarkable one, and one which rarely takes place. It is absurd to expect that when cholera becomes epidemic in a city, that the annual mortality will not be increased. If the disease becomes at all prevalent, the annual deaths will be fearfully increased; but this fact being admitted, we agree with Dr. Craigie that "the average mortality of subsequent years will undergo some diminution, and that, if the whole mortality for the ensuing ten years, after the disappearance of cholera as an epidemic, be compared with that for the preceding ten years, including of course the epidemic year or eighteen months, it will be found that the annual averages will be rather less, and certainly will not be more. The reasons on which

I found this inference are the following: The majority, if not the whole of the persons who have fallen victims to cholera, must at no long period have become the prey of disease of the heart, lungs, or kidneys, in the form of apoplexy or dropsy, or consumption, or of the intestinal tube, in the shape of chronic diarrhœa, or must have slowly sunk under uterine or ovarian disease; or, even if they resisted the slow and certain operation of these maladies, they might have become the victims of fever, catarrh, or an acute attack of inflammation, in any one of the organs already disordered. It must indeed be manifest to every one, that the same order of individuals who are annually cut off by fever, local inflammation, dropsy, and chronic diarrhœa, or dysentery, afford the most numerous supply of subjects to cholera. It cannot therefore be denied that those individuals who are destroyed by cholera, will no longer remain to become the victims of fever, of apoplexy, of lethargy, of dropsy, or consumption, and that consequently the list of deaths under each of these heads must be diminished by the entire number of those who have fallen victims to choleric epidemic."—*Edinb. Med. and Surg. Jour.*, No. cxiv, page 46.

Dr. Craigie, in the latter part of these observations, goes, we think, too far—that *all* who die of cholera would within ten years have died of some other diseases. Many of the victims of cholera are affected with organic affections, which would, had they been permitted to live through the epidemic, have speedily destroyed them; but it is equally certain that a great number were cut off by the pestilence in the full vigor of health, and who, had they escaped, would probably have lived to old age.

As the cholera is still spreading itself over our western States, we publish the following letter communicated by Mr. Marsden to the Central Board of Health, London. The saline treatment has been most successfully employed in the Greville street Hospital; and when so fearful a pestilence is abroad, it is well for the profession to be informed of every new method of treatment which may promise to be successful.

2, THAVIES INN, Dec. 15, 1832.

DEAR SIR: In conformity with your request of the 6th inst., and for the information of the "Central Board," I beg to lay before you the following statement of the number of patients admitted into the Free Hospital, Greville street, up to the 12th of October last, with the modes of treatment and the results.

184 patients afflicted with malignant cholera in the 2nd stage—that is, having no pulsation at the wrist, livid extremities, &c. &c.

Of this number seventeen died, either on their way to the hospital, or immediately after admission, no medicine having been administered. Eighteen were treated by various plans, previously to the introduction of saline remedies, of whom thirteen died, and five recovered. Thirteen, who were treated by the above plans, were, after all hopes of recovery were lost, injected with the following saline solution, at the temperature of 110 degrees.

℞ *Sodæ muriat.* ℥ij;
Sodæ carbon. ℥j;
Potassa oxymur. gr. viij;
Aqua ℥xxxij. M.

Eleven died and two recovered.

Twenty-three were treated in the first instance by calomel and opium, brandy, ammonia, external stimulants, &c., without success; afterwards by the saline medicine.

℞ *Sodæ carbon.* ℥j;
Sodæ murias. ℥ij;
Potassa oxymur. gr. viij. M.

This powder, dissolved in four ounces of cold water, to be given to the patient (an adult) every fifteen minutes, till re-action is established; afterwards every thirty minutes, one hour, two hours, and so on, till out of danger. A hot saline bath to be used every four, six, eight, or twelve hours, according to circumstances; fourteen pounds of salt dissolved in each bath, at 120 degrees. The patient to drink as much cold water as possible; no spirits, wine, or indeed any thing else.* Eighteen died and five recovered.

Of twenty-eight who had taken freely of opium and brandy previously to their admission, but afterwards put on the saline treatment, twenty-one died, and seven recovered. Of four, who were aged and previously diseased, treated by saline remedies only, all died. Of eighty-one who were treated by the saline remedies alone, seven died and seventy-four recovered.

In addition to the above number, 315 patients (who were not reported,) laboring under the first stage of the complaint, were treated by calomel

* It is my opinion that the large quantity of cold water taken by the patients was of the utmost importance. One patient who died, swallowed forty gallons within ninety-six hours; he took seventy-eight pints during the first twelve hours. Ten patients who were quite restored under the saline treatment, took 225 gallons within 78 hours.

and vegetable purgatives; twelve cases ran into the second stage, and were treated by the saline remedies: eventually four died; all the rest recovered.

The Powder and Draught for an Adult.

℞ *Calomel* gr. xx.
Zingiber in pulv. gr. xx. M.
℞ *Ol. ricini.*
Tinc. rhei. aa. ℥j. M.

The powder given immediately, and the draught four hours afterwards; both to be repeated, if required, every four hours, for three times, providing collapse do not supervene. Small doses of simple saline mixture to be taken with the above in order to keep the stomach tranquil.

I am, dear sir, your obedient servant,

W. MARSDEN.

The table we subjoin, furnished by the Hon. Med. Sec'y of the Board, is interesting.

MALIGNANT CHOLERA IN LONDON
Comparative View of the various Modes of Treatment adopted in Cholera, within the jurisdiction of the City of London Board of Health, transmitted by Mr. F. DE GRAVE.

	Cases.	Deaths.	Recoveries.	Deaths per cent.	Recoveries
Calomel and opium	196	112	84	57.14	42.
Opium	81	47	34	58.	42.
Calomel	75	35	40	46.66	53.
Stimulants	63	42	21	66.66	33.
Combination of salts proposed by Dr. Stevens	25	22	3	88.	12.
Combination of salts used at Greville st. Hos'al	26	8	18	30.77	69.
Venous injection	20	18	2	90.	10.
Miscellaneous	17	8	9	47.06	52.

Mr. King, of London, has read at a late meeting of the Westminster Medical Society, a paper on excision of polypi of the uterus, as it embodies an account of the practice pursued in the cases by the Baron Dupuytren, and the description of a new instrument employed with success by Mr. King. We give the following transcript of his paper as published in the *Lancet*.

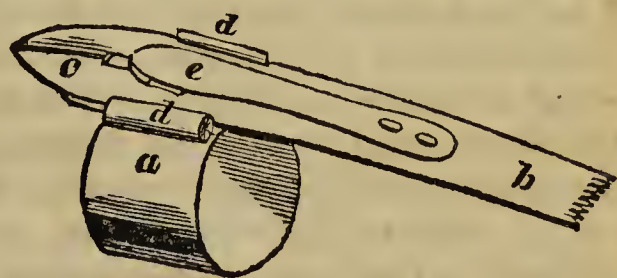
“Until within the last few years, polypi of uterus were almost always treated by ligature every country, and up to the present day, this plan is generally preferred in England. It must not be forgotten, however, that Fabricius, *ab*

pendente, was in the habit of removing them by excision, a method of cure first pointed out, I believe, by *Ætius*. *Fabricius* used to divide the pedicle with a kind of cutting forceps, and we find no good reasons alleged to explain why this process was abandoned. It has been stated, I know, over and over again, that it was frequently followed by hemorrhage, profuse and dangerous; but, from recent observations relative to the nature of these tumors, and more especially from the results of *Baron Dupuytren's* practice, there is every reason to believe that it was open to some more valid objection. What that more valid objection was, cannot positively be stated; but I would venture to surmise (before entering upon the inquiry, whether the danger of hemorrhage is a well-founded objection,) that it arose from the difficulty of performing excision without wounding the uterus. We find, indeed, that *Fabricius*, in operating, carried the forceps up to the tumors upon his fingers, previously passed to the vagina, and, embracing its stalk with the blades, cut it through; and this is all that is said about it. Now it is very easy to say, cut off the polypus, but not quite so easy to do so; and I think, that had this point of surgery been met with the consideration its importance deserves, and suitable means been adopted for using cutting instruments, the process of operating by excision would not have been so long suspended. To one of the boldest and most ingenious of the French surgeons, *Baron Dupuytren*, we are, I believe, indebted for its revival. He was the first to consider the objection about hemorrhage as chimerical, and to see that the real one was the danger of wounding the vagina and uterus with the knife; and having witnessed, on the other hand, the irksomeness and inconveniences of applying a ligature, he was induced to try another method. Well knowing the danger of sitting at the bottom of the vagina, and seeing the means of completely obviating it, he brought himself of bringing the disease into view, drawing the uterus down to the internal orifice of the vagina. He conceived, in fact, that by seizing the tumor with strong hook-forceps, he might draw it, uterus and all, within sight, or at least so near the orifice of the vagina as to be able to detach it with a pair of curved scissors. He succeeded perfectly, and since then I should think he must have operated upon nearly a hundred cases with success, and without accident. Only one case was he obliged to have recourse to active means to arrest the hemorrhage—a most remarkable fact, which I hope the society will

bear in mind. In several of these I had the advantage of assisting him, and witnessing the result; and some few cases operated on by myself, were equally fortunate as to hemorrhage; we scarcely even anticipated such a thing. I confess, however, this plan is not entirely exempt from inconvenience; sometimes it is impossible to draw the uterus down; often the attempt is attended with great pain; and I believe there are instances of its being followed by serious peritonitis. Of late, too, I have seen that some polypi yield to the pressure of the hooks, so that portions of it are torn away, and then, the stalk of the tumor being too small and too far off to be laid hold of, remains to reproduce the disease. Some would, perhaps, consider this no objection at all, and advise seizing the neck of the womb with the hook-forceps, and drawing it down as *Lisfranc* does, when he removes it in a cancerous state; but surely inflicting an injury of this kind would scarcely be justifiable in a case of polypus; for an injury undoubtedly it is, to fix hooks into the neck of a sound uterus. A further objection may be urged against this method—namely, that it requires that the patient should be placed on her back, and exposed in a manner to which a strong aversion must naturally be felt. These considerations have induced me to recommend a plan, which, in a case of great difficulty, I employed with success. The tumor occupied the interior of the neck of the uterus, being attached by a stalk about three quarters of an inch in diameter, rather to the left of its anterior wall, a few lines beyond the orifice, or ostium, which was sufficiently open to allow the finger to be passed round the pedicle, as is generally the case. It caused perpetual bleeding, and pain in the back and sacral region; but there was this remarkable peculiarity in it, which will explain the difficulty experienced by one of the surgeons whom the patient consulted in forming a precise diagnosis—namely, that at certain periods a good deal of blood was effused at the lower part, apparently under its membrane. This blood gave the tumor, for the time it remained, a considerable increase of volume, making it appear to any one who examined it then, as large as a middle-sized pear; but all at once coagula would come away, affording considerable relief to the pain in the back, and then the polypus would assume the volume, and somewhat the shape, of a large chesnut. It was in the latter state when I first examined it, just after an unsuccessful attempt had been made to remove it. As the account given of it by the operator

did not coincide with mine, I requested to meet him in consultation. We met, I think, three or four days after his operation, I declaring the tumor to be not bigger than the end of my thumb, and my colleague stating it to be the size of a pear. I desired he would examine the tumor again: he did so, and immediately declared that my opinion was correct. It then became a question, whether or not he should recommence the operation, which, previous to our consultation, he had fully resolved on; and we agreed that no operation should be attempted, my colleague thinking this remnant of the tumor, as he called it, might not cause inconvenience, I on the contrary believing the main and solid part of the polypus still to exist, but that it could not easily be laid hold of by ligature or otherwise. My reason for thinking the removal impracticable, was founded upon the oblique and moveable position of the polypus; it could just be reached by the end of the finger, per vaginam, and seemed to slip into the cavity of the uterus the moment any attempt was made to carry the finger beyond its attachment. This circumstance, which operators who have written on the subject seem to have overlooked, constituted the real difficulty, and rendered the result of any operation doubtful. For several months, I confess, appearances seem to favor the result which my colleague had led the patient to anticipate; and, concealing my own apprehensions, I took particular care not to disturb the hopes she entertained. At length, however, the symptoms returned, and the patient consulted, of her own accord, a practitioner of very great experience in disorders of the uterine system, who, as soon as he examined her, per vaginam, proposed an operation by ligature. She then expressed a wish to have my opinion again, and I was directed to speak to this gentleman on the subject. I intimated to him the difficulty I thought he must experience in applying a ligature, if the tumor had not much increased since my last examination. He agreed with me as to its size, but apprehended no difficulty in the operation, in which he invited me to assist him. The attempt was made, but the operator, after long and arduous efforts, found it impossible to apply the ligature. He then had recourse to a plan similar to that which it is the chief object of this paper to recommend. He employed the nail of his finger as a knife, and succeeded in removing the polypus, piece by piece, pretty cleanly. It was of a grey gelatinous tissue, and seemed to owe its firmness chiefly to the cellular membrane sur-

rounding it. We were right about its volume and form, in which it very much resembled a chesnut. The patient necessarily suffered a good deal from the slow and difficult process of cutting through such a tumor with the nail, and from the force it was necessary to use. Unpleasant consequences, however, followed, and in three or four days she was comparatively well. All along we had every one of us suspected that the uterus itself was enlarged, and consequently, that the disorder might return. Unfortunately the symptoms re-appeared after a few months, and I was again consulted. Upon examination this time I found the tumor to be about the size of a pear, and filling the vagina. As the practitioner, who first operated, had described it. But, knowing what had happened before, I clearly discovered the lower and greater part of it to be formed of coagulated blood. When the symptoms seemed urgent, I was requested to remove it, but aware of the difficulty my associates and eminent colleagues had experienced before me, I resolved to operate by excision, if I could devise the means of performing it. It was clear that the pain and tediousness of removing it with the finger nail depended on the bluntness of the instrument, and that, owing to its size and particular position, a knife or scissors would expose us to the danger of wounding the vagina or uterus. It seemed to me then, that if I could substitute for the finger-nail an artificial one made of steel, and sharp, the polypus might be speedily and safely removed. The instrument I had constructed, which you see here, is composed of two parts.



"It consists of an open thimble (a) and a sliding blade. (b) The thimble, which has a groove (dd) on its upper part, for the blade to slide on to the finger. The blade is seven inches long, half an inch wide, and shaped at one end (c) into a broad shouldered lancet. This should be introduced to and fro in the groove of the thimble close upon the finger-nail, and by means of a spring (e) can be stopped there at different points, so that the lancet may be protruded more or less beyond the end of the finger. In introducing the instrument, the lancet is to be kept back until the end of the finger has reached the stalk of the

polypus, and discerned the part to be cut through; it is then to be pushed forward by an assistant, the operator's other hand, to the degree of projection required, and used in the manner one could employ the nail to excise the tumor. In this way I succeeded in removing the polypus in a much shorter time, and with much less pain to the patient, than was occasioned by the prior operations. It was smaller and more yielding than the first tumors, and from the manner in which it slipped away from the finger, I do not see how it could have been removed but by the instrument employed. I cauterised that part of the uterus to which it was attached with the nitrate of silver, fixed in a long quill, which I directed to the spot upon my finger. The bowels were kept regular, and warm aqueous injections were thrown into the vagina twice or thrice every day. On the fourth day I examined the vagina, and not a vestige of the polypus could be felt. The ostium was closed, and the uterus appeared to me to be in a more healthy state than I had ever before found it."

Mr. King, in the discussion which followed, admitted that from the difference between the sense of touch experienced with his own nail, and the touch of the lancet nail, great care and delicacy of proceeding was necessary.

WOUND AT THE ELBOW-JOINT.

A stout athletic man lately applied at the London hospital under the following circumstances:—He stated that while employed at the docks, working at one of the cranes, the handle struck him smartly on the elbow. On examination a small contused wound was found at the right elbow-joint, between the olecranon and internal condyle of the humerus. There was considerable tumefaction about the joint, but the arm did not appear to have suffered much contusion. The man stated that he had lost a considerable quantity of blood from the part, and that great difficulty was experienced in arresting the bleeding. The hemorrhage had entirely ceased when he reached the hospital. He was advised to remain at the hospital, but this he refused to do, and was furnished with an out-patient's ticket. He was directed to preserve the arm in perfect quiet, to keep rags wet with spirit lotion constantly to the part, and to take a scruple of calomel and jalap. As the arm became painful, to return to the hospital, and have leeches applied.

The next day there was very little inflammation, the swelling not more extensive than on the preceding day; bowels freely opened by the purga-

tive. The wound was dressed with adhesive plaster. To continue the spirit wash.

Two or three days afterwards, this patient came to the hospital complaining of severe pain in the part. There was considerable inflammation about the joint, which was hot and greatly swollen. Tongue furred, bowels confined, skin hot and dry; acknowledged having drunk a quantity of beer, daily, since the accident. He was advised to remain in the hospital, as he endangered his limb or his life by going about, to which, after some difficulty, he consented.

Ordered to keep his bed; the arm to be placed on a pillow; 20 leeches to be applied around the joint; to continue the spirit lotion, and have a dose of house medicine directly, and 30 drops of *tinct. opii* at night.

On visiting him on the following morning, there was great swelling and tension of the arm with increased heat and redness, and severe throbbing pain at the joint. The man was laboring under much constitutional excitement; his pulse quick, with a hot dry skin, thirsty, and tongue furred. Ordered to have the leeches repeated, the joint to be buried in a linseed-meal poultice; to be freely purged, and take the *saline mixture* with eight drops of laudanum every eight hours. The opiate to be repeated at night.

The arm is less painful to-day; the febrile symptoms are mitigated; bowels open; rested badly last night, notwithstanding the opiate. To repeat the leeches.

There is still considerable swelling around the joint, which is painful; the constitutional symptoms, however, are now trifling. To have 12 leeches applied every morning, and continue the poultice. There is a thin discharge from the wound; but it has not any appearance of being synovial.

The swelling of the arm has greatly subsided, and he is now free from pain. There appears to be a small collection of matter a short distance below the olecranon, at which part the integuments are rather more distended; the fluctuation is not very evident: however, on putting a lancet into this part, about half an ounce of healthy pus was evacuated.

The man from this time did well.

THE combination of mental and manual dexterity in the reduction of dislocations is much more general and successful in France than Great Britain, as all will allow who have witnessed the amusing and instructive scenes which take place in the Hotel Dieu.—*Mr. Crampton, Dub. Jour.*

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OF

MEDICAL AND CHIRURGICAL SCIENCE

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, NOVEMBER 21, 1833.

No. 6.

New Views of the process of Defecation, and their application to the Pathology and Treatment of Diseases of the Stomach, Bowels, and other organs; with an Analytical Correction of Sir Charles Bell's Views, &c. By James O'Beirne, M. D. Surgeon Extraordinary to the King, and one of the Surgeons of the Richmond Surgical Hospital in Dublin, &c. Octavo, pp. 286. Dublin and London, February, 1833.

Originality, whether theoretical or practical, has been so rare, of late years, in medicine, that it is quite refreshing to see even the pretension to it confidently made. The recent epidemic, indeed, gave origin to some novel doctrines and practices, but unfortunately they were very ephemeral, giving way to one another, like the waves of the ocean. The venous injection promised, for a moment, to realize all the miracles of Medea's cauldron, but soon experienced the common lot of man and his works. The author of the work before us appears to apprehend much opposition from "that tendency of the mind to be slow in admitting, and active in resisting every new truth, particularly whenever that truth happens to conflict with either long-established or preconceived opinions; and shews the sources from whence I chiefly anticipate opposition." We put it to Dr. O'Beirne's cool judgment whether this opposition is not rather against new *doctrines* than against new *truths*, and until every new assertion is proved to be a true one, we think the caution extremely salutary. What has occasioned all this backwardness to receive new truths? nothing originally inherent in human nature—Nothing but the woeful experience that nineteen new truths out of twenty are no truths at all! How can we know that an author is the exception

to the general rule, till his truth is tried by experience, and who can wonder at the backwardness of the public to make the experiments, when that public is certain of being misled ninety times in twenty. We cannot but think that O'Beirne's apprehensions are groundless; for these days no proposition, however absurd, long remain untested. As for opposition, is it the best thing that can happen to any novel proposal. Did opposition prevent the introduction of cool air in small-pox, or the practice of vaccination, or, in fact, any real improvement in medicine or surgery? Certainly not. It is doubtful whether the circulation of the blood would now be known, had not the violent opposition Harvey secured the discovery against neglect and oblivion. If Dr. O'Beirne's new views are correct, and his practices successful, he ought to pray every night, on his bended knees, for every species of opposition—nay, for every term of reproach from that race of critics which he is obliged to oburgate with quotations from Locke. But we shall now proceed to do the author the best service in our power—that of making the contents of his work known to the public.

In the autumn of 1821, the author treated a case of traumatic tetanus with success, by means of tobacco enemata. In May, 1822, he employed the same remedy in another case, but it failed. In both cases, however, he observed, that there was great difficulty in pushing the injection higher up than the rectum. This circumstance convinced him that the muscular coats of that part participated in the state of general spasm. The idea therefore occurred of introducing an elastic tube into the sigmoid flexure of the colon. In October of the same year, an opportunity occurred

of testing this idea. The case was one of matic tetanus. A large gum elastic catheter pushed up with great difficulty through the contracted parietes of the intestine; and at length, when introduced to the extent of nine or ten inches, it passed rapidly forward, as through a narrow ring, "when an escape of flatus and fæces took place from its extremity, (the end having been cut off and smoothed,) giving great relief to the patient." It was now Dr. O'B's. power to administer the tobacco tincture, so as to insure its own peculiar effects, and on the bowels. The patient recovered; "and this period may be dated my unexampled success in treating this hitherto most fatal and intractable disease. In the mean time, other cases, attended with constipation, came before him, and suggested the trial of a similar remedy—or rather a similar mode of throwing up purgative fluids. "In almost every instance in which these trials were made, the plan was attended with the most decided and prompt success. Dr. O'B. was also led to the conclusion, that, "the natural action and state of the rectum (rectum) were directly opposite to what have always been considered to be." Experiments were made on the rectum of persons in health, and the author's were confirmed.

From the earliest period to the present, all anatomists have described the fecal matter as passing freely from the sigmoid flexure of the colon into the rectum, and gradually distending the latter until, by its pressure, such a sense of fullness is communicated to the sphincter ani and muscles of the perineum, as to rouse the diaphragm and abdominal muscles to effect its expulsion from the body. It is a universally received opinion also, that the power of retaining feces and controlling their discharge, depends exclusively upon the sphincter muscles of the

These opinions, it is obvious, originated from the circumstance of the sigmoid flexure and the rectum appearing in the dead body as one continuous tube, and also from the fact of there being no arrangement of fibres available in the muscular coat of either of these portions of the intestinal canal. But venerable opinions are rendered by time, and plausible as they may appear, the following facts and observations will be sufficient to shew that they are erroneous, and formed upon the most superficial and deceptive views." 3.

The design of Nature (observes our author) is to divert the large intestines into a dépôt for the reception and retardation of the fæces would

have been rendered abortive, if a free communication existed between the sigmoid flexure and the rectum—such a free communication necessarily exposing the rectum to frequent accumulations, and the sphincter ani to continued irritation.

"*Secondly*, The circumstance of Nature forming one of her chief depôts for excremental matter in a part of the intestinal canal so close to, and continuous with the rectum, as the sigmoid flexure is, appears altogether inconsistent with the idea of a free passage between these portions of the canal.

"*Thirdly*. In the act of receiving an enema, every person is sensible of a considerable degree of opposition to the ascent of the fluid in the rectum. It is well known, also, to those in the habit of administering injections per anum, that, although the syringe may be in the best order, properly filled, and its pipe fairly inserted up the rectum, considerable force is generally required to discharge the fluid, from the resistance given to its passage upwards. These facts would lead us to infer that the rectum, so far from being open, is firmly contracted and closed.

"*Fourthly*. Surgeons find it necessary to pass a finger up the rectum, either to direct the course of a catheter, sound, or staff, to discover whether a fistula communicates or not with the bowel; to detect the presence of a calculus in the bladder, or a stricture in the intestine itself; to ascertain the state of the prostate gland, and for various other purposes; and yet it is a fact that it has exceedingly rarely happened, that, on any of these occasions, the finger has encountered either solid or fluid feces in the rectum, or presented a soiled appearance when withdrawn. Indeed, as far as my experience and inquiry has enabled me to speak on the point, in the few instances in which such examinations have detected the presence of excrement in the healthy rectum, it has been invariably found in very small quantity, and never in any but the lowest part, or pouch, of this intestine. It is, also, a fact familiar to apothecaries and nurses, that the pipe of the injecting syringe, however long it may be, is rarely, if ever, found soiled with fecal matter, when withdrawn after administering an enema. These circumstances shew that the rectum is contracted and closed, so as to prevent free communication between it and the sigmoid flexure." 5.

Before proceeding further, we must beg to enter our protest against the correctness of the *third* proposition in the above extract. We appeal to universal experience, whether this difficulty in throwing up enemata be not the *exception*, rather

than the general rule. Excepting in morbid irritability of the bowel, or accumulations in the rectum or sigmoid flexure, we rarely experience any difficulty in throwing up fluids, after the pipe has fairly passed the sphincter ani. We confess, therefore, that this early attempt to strain an exception into a general rule in order to support a theory, has thrown us a little on our guard; in this early stage of the examination on which we are entering. At the same time, we do not deny that the *natural state* of the rectum, as of all hollow muscular tubes or pouches, is contraction, till distended by their natural contents. Is not the bladder in a state of contraction, till distended by the urine from the kidney? But when distended and containing urine, is the bladder not also in a natural state—that is, in a state which Nature designed it to be in, much more frequently, and for a much longer space of time, than in the condition of contraction? Because the stomach is in a state of contraction (comparatively) in hunger, is it in an *unnatural* state during the digestion of our food, when distended with aliment?

The *fourth* proposition is ingenious. Every practitioner well knows that, generally speaking, when operations are performed on the bladder or rectum, the bowels are previously cleared by an aperient or a lavement; and so far the author is correct, when he says that the finger rarely encounters solid or fluid fæces in the rectum. But if this preliminary caution is not used, we venture to assert that the finger will *very frequently* come out of the rectum soiled with faecal matter. In fact, we mean to assert that, except after evacuations, natural or artificial, it is almost as common to find fæces in the rectum as water in the bladder. At the same time, we believe and know that the rectum is not the sole depository of faecal matters; for we are quite certain, from much attention to the subject, that *during* almost every natural or artificial evacuation of the bowels, a considerable portion of the evacuated matters comes from the sigmoid flexure of the colon. Any person, who is not very corpulent, may ascertain the fact, by pressing the fingers of his left hand deeply into the hollow of the left ilium, just before an evacuation. He will there feel a kind of wedge, which disappears during the evacuation of the fæces. Nay, we can assure our readers that this very pressure of the fingers will often, we had almost said *generally*, excite the bowel into action, and greatly assist the expulsion of the fæces, in costive habits.

“*Fifthly*. Membranous filaments have seldom,

if ever, been found traversing in various directions the cavity of either the small intestine, cæcum, or the colon, while they have often met with in the rectum. This fact proves the parieties of the rectum must have been contracted, and its lining membrane in close contact at all points, for a time sufficient to effect the organization of these filaments, and, consequently, that there could have been no communication between this intestine and the sigmoid flexure at least several hours.

“*Sixthly*. The two sphincter muscles of the anus are considerably weakened in the disease called prolapsus ani. In the operation for it in ano, these muscles are completely divided, thereby wholly incapacitated, for a certain time from acting as sphincters;—not only these muscles, but also a portion of the rectum above are occasionally destroyed by venereal, mercurious and other ulcerative processes; yet it happens that the power of retaining the contents is found to be at all impaired in any of these cases. It is therefore manifest that this could not possibly occur if the passage in the rectum were as free as it is supposed to be. The power of retaining the fæces, and regulating their discharge, depended solely on the sphincter muscles of the anus.” 6.

The fifth proposition we do not clearly comprehend, and, therefore, we shall not comment upon it. If Dr. O’Beirne had ever the fortune to be cut for a fistula, he would have experienced the disagreeable inability of retaining the fæces till the muscle had recovered its power by the healing of the cut. Has Dr. O’Beirne seen one of those melancholy cases where the sphincter ani is lacerated in child-birth, where the inability to retain fæces continues for life? If he has not, we can shew him one if ever he pleases to see it. The reason why in such cases, the fæces are not *constantly* discharged from the rectum appears to be, that they are not *constantly*, but periodically moving along the length of the colon. Once or twice in the twenty-four hours, the fæces become accumulated in the sigmoid flexure (chiefly the sigmoid flexure) and the rectum, then the stimulus of their presence induces the portions of gut to contract and expel them. They very often stagnate, as it were, in the rectum, is well known to those who are often in the habit of examining the vagina of the female. Nothing is more common than to find the rectum loaded with solid fæces in such cases. We now give the author’s description as to the *natural and ordinary state* of the rectum.

Seventhly. Seeing the forcible nature of the going facts, and anxious to test the truth of inferences drawn from them, I have been led to examine the rectum of a number of healthy persons, healthy, at least, as far as the bowels are concerned, at different times in the same day, in order to ascertain its actual state, and as early as possible the time and manner in which it is filled. I proceeded in the following manner, and almost invariably obtained the following results. On passing a stomach tube to the height of half an inch up the rectum, neither flatus nor gas escaped through it; passing it up about an inch and a half higher, it was still found that nothing escaped, but that it could be moved about freely in a space which, on introducing the finger, was ascertained to be what anatomists call the pouch of the rectum, in a perfectly open and empty state. From the highest part of the pouch to the upper extremity of the bowel, generally a distance of from six or seven to eight inches, it was found that the tube could not be passed upwards without meeting with considerable resistance, and using a degree of force sufficient to mechanically dilate the intestine, which was only felt to be contracted so as to leave no room for this extent. When the instrument was pushed, in this way, the uppermost point of the rectum, the resistance to its passage upwards was felt to be sensibly increased, until at length, using a proportionate degree of pressure, it was pushed forward rapidly, and as if through a ring, more or less tight, into a space in which its exit could be moved with great freedom; and instantly a rush of flatus, of fluid feces, or of stool took place through the tube. In some instances, indeed, it happened that neither gaseous nor liquid matter escaped at this moment, but, in these, the distinct feel of the extremity of the finger having entered a solid mass in the flexure, was communicated to the hand; the instrument, being withdrawn, exhibited a few inches of the upper extremity covered, and its eyes plugged with solid excrement; the person generally went to stool soon after, and passed a large quantity of solid feces. In every instance where the rectum presented the least appearance of feces after being removed, this appearance was confined to the portion of its upper extremity which had entered the sigmoid flexure.

In this way, I have also examined the rectum of healthy persons in a few minutes after they had passed a stool, and of others at the moment when they felt a moderate inclination to go to stool, and have ascertained that the rectum is in

a perfectly empty and contracted state at both of these periods.

"The results of these examinations establish the correctness of the inferences drawn from a number of facts, but in a much more positive and precise manner, for they distinctly prove, first, that in the healthy and natural state, all that part of the rectum above its pouch, is at all times, with the single exception of a few minutes previous to evacuation of the bowels, firmly contracted, and perfectly empty, at the same time that the pouch itself, and also the sigmoid flexure of the colon, are always more or less open and pervious; lastly, that the sphincter ani muscles are merely subsidiary agents in retaining the feces." 8.

Should these statements be confirmed by the experience of others, they will strengthen very much the views of the author. Dr. O'B. next proceeds to shew, from anatomy, that the parts in question cannot be in any other than the condition above-mentioned. The anatomical reasons we must condense as much as possible. *First.* The small intestines have hardly more than one muscular coat; and the same of the colon and cæcum, with the addition of three narrow longitudinal bands. The rectum possesses an internal coat composed of strong fibres, circularly arranged, and also an external one of longitudinal arrangement, the three longitudinal bands of the sigmoid flexure sending down strong fleshy fibres to be expanded upon, and intermixed with those of the external coat. Hence the author concludes that the rectum exceeds every other part of the intestinal canal in muscular power. *2dly,* This is the only portion of gut into which we can trace branches from the regular spinal nerves without previous interlacements with filaments from the sympathetic—consequently it is the only part of the intestinal canal receiving, directly, both motific and sensific nerves. It is fair to infer that this gut then possesses a higher degree of irritability and sensibility. When a tube so constituted is called into strong action, the effect will, he thinks, be perfectly similar to what takes place in the œsophagus after deglutition, namely, to contract its parietes and obliterate its cavity in that portion which is above the pouch. That the rectum is quiescent during the intervals of defecation, is, he thinks, incontrovertible.

"But I shall now show that a change which the flexure undergoes at the same moment, maintains the rectum in this favorable situation until such time as another evacuation of the bowels is

about to take place. This change consists in the inferior and greater portion of the empty flexure falling into the pelvis, hanging doubled over, and rather to the left of the rectum, remaining in this situation until it is raised by distention into the place it had previously occupied in the left iliac fossa; and it is scarcely necessary to observe, that the first of these changes of position is one which would effectually prevent the descent of fluid or solid feces, if not of flatus, and thus secure the undisturbed condition of the rectum." 13.

This last statement needs confirmation by others. The author is now prepared to exhibit his own view of the process of defecation, and we shall give them in his words, since claimants to originality are generally jealous of any misconception of their discoveries.

"The contents of the stomach having passed through the pylorus, and entered the superior transverse portion of the duodenum, this portion of the intestine, previously in a passive state, is now roused into activity by the stimulus of distention, the circular and a few comparatively very minute longitudinal fibres which compose its muscular coat, contract forcibly upon the contained mass, and urge it into the next, the middle or perpendicular portion, in which its presence also excites contraction; and thus by a succession of similar dilatations and contractions, the mass is propelled in a gradual and regular manner through the inferior transverse portion into the jejunum, and thence to the termination of the ileum. This process, however, is considerably assisted by the firm, equable, and constant pressure to which the small intestines, in particular, are subjected by the diaphragm behind and the abdominal muscles before, in their alternate contractions to assist in carrying on ordinary respiration. It is also greatly facilitated by the circumstance of the gaseous matter necessarily taking the precedence, dilating the bowel before it, and thus, if not wholly effacing, greatly diminishing the acuteness of the numerous angles formed by the convolutions of the small intestines, and which would otherwise present so many serious obstacles to the progress of the solid and fluid parts of the mass. Having been conveyed by these means to the extreme termination of the ileum, the contents, now reduced to excremental matter and a considerable quantity of a peculiar fetid gas, are propelled into the cæcum through the ileo cæcal valve, which is so constructed that, at the same time that it affords them a perfectly free passage, it effectual-

ly prevents even their fluid or gaseous port from returning, either in health or disease, into the ileum. Having entered the cæcum, they are there very differently circumstanced, and moved forward by a very different process. But to find it most difficult, if not impracticable, to explain these points in a sufficiently clear and satisfactory manner, without first disposing of others, I shall defer their consideration for the present, and assume that the fecal mass has been conveyed into the sigmoid flexure, and that the repeated descent of similar masses causes a portion of the colon to become distended, and to ascend from the cavity of the pelvis into the iliac fossa. When this occurs, the flexure, in proportion to the rapidity and degree of its tension, begins to turn upon the contracted rectum as upon a fixed point, until, at length, the stomach, it directs its greater arch forward and upwards, and its lesser backwards and downwards. By this movement the contents are brought somewhat perpendicular to, and so as to bear directly upon the upper extremity or annulus of the contracted rectum, but as their weight is insufficient to force a passage downwards, and as this end cannot be accomplished either by such gentle pressure as that exerted by the alternate contraction of the diaphragm and abdominal muscles in ordinary respiration, or by the efforts of the flexure itself, in consequence of its muscular power being so very inferior to that of the rectum, they are compelled to remain stationary, until such time as the increasing accumulation and distension produce a sense of uneasiness sufficient to call into action those general expulsive agents, the diaphragm and abdominal muscles. These muscles, instead of acting alternately, now act simultaneously, compress the abdomen and its contents on all sides, urge the free and floating mass of small intestines downwards, and even into the cavity of the pelvis, as to press forcibly upon not only the distended sigmoid flexure, but also upon the cæcum and the urinary bladder. By these means the contents of the distended flexure are acted upon in every direction, and so as to be impelled against the upper extremity or annulus of the contracted rectum with a force sufficient to compel the contents of this intestine to separate and afford free passage. The nismus now ceases, but soon as the rectum becomes filled, it is roused to make an expulsive effort, by which the whole of its contents are driven and impacted into the pouch. Here their accumulation produces a great sense of weight and uneasiness in the perine-

an urgent desire to go to stool, and a still stronger nismus, by which the sphincters are forced open and dilated, and the final expulsion of the excrement is effected. But the urinary bladder, although it is subjected to considerable pressure during this process, is not evacuated at the same moment, but immediately after because, during this the last stage of the process of defecation, the accumulation within the pouch and dilated sphincters presses up the prostrate gland against the arch of the os pubis, and thus effectually prevents the flow of urine, until the accumulation is removed. The evacuation of the rectum and bladder being completed, immediately the nismus ceases, the rectum and the sphincters return to their former state of contraction, the diaphragm reascends, carrying with it and restoring to their proper positions the liver, the stomach, the spleen, the small intestines, the cæcum, and the ascending, transverse, and descending portions of the colon. But the inferior portion of the sigmoid flexure is differently situated. Having a remarkably long and free process of peritoneum, and being empty, it is compelled, during the last expulsive nismus, to occupy part of the space which the evacuation of the bladder and rectum leaves in the cavity of the pelvis, and must of necessity remain in this situation until it becomes again distended; because, as a mere glance will show, the manner in which the peritoneum connects the small and large intestines with the diaphragm is such, that from the descending portion of the colon being bound down to the abdominal parietes, this is the only portion of the intestinal canal which does not follow, and is not in the least influenced by the action of the diaphragm. This is the fact which induced me to assume that the situation of the empty flexure in the living body, is the same as that in which it is uniformly found after death." 23.

The passage of the excrementitious matter from the cæcum to the sigmoid flexure is the next subject of demonstration, and we suspect that our readers will not consider the author quite so happy in his explanation of this process. We shall, therefore, again let Dr. O'B. speak for himself.

"The excrementitious matter passing from the ileum into the cæcum, becomes accumulated in the latter intestine, and prevented from being moved upwards from a variety of causes, among which may be mentioned the very acute angle at which the ileum enters the cæcum; the greater size and capacity of the cæcum compared with

the ileum which enters, or the ascending colon which leads from it; the long course which the ascending colon takes against gravity; and the absolute necessity of the cæcum becoming filled before it can either be excited to or supported in any expulsive effort. But there is obviously another, and a still more powerful cause than any of these for accumulation in this situation. *It is this, while the solid and fluid portions of the excrementitious matter are filling the cæcum, the gaseous portion, not being subject to the same laws and disadvantages, ascends into and ultimately fills to distention all that space intervening between the cæcum and the sigmoid flexure, and by the pressure which it exerts, as effectually prevents the ascent of the contents of the former intestine, as the introduction of air into the tube of a barometer prevents the ascent of the mercury.*

"Although thus difficultly and peculiarly situated, the contents of the cæcum are transferred to the sigmoid flexure by a very simple process, which is this. From the above causes, the accumulation of flatus in the colon increases, until at length the great expulsive agents are called into action, and the bowels evacuated in the manner just described. One of the great impediments, the flatus, is thus removed, but at the same instant of time that this is effected, the diaphragm and abdominal muscles are not only compressing the cæcum in the way already mentioned, but also propelling the contents of the small intestines into the already distended cæcum in considerable quantity, and with a force at once sufficient to excite this intestine to an expulsive effort, and compel its contents to ascend and occupy the vacant space above it; and once put thus in motion, the mass is easily forwarded by the action of the diaphragm and abdominal muscles, aided by that of the intestine itself, into the descending colon, from whence its descent into the flexure is comparatively easy and obvious. As a proof that this is rarely the process by which the cæcum is unloaded, and the flexure filled, and that it is one which is not slowly, but very quickly completed, I shall now state a few facts with which the nature of my examinations into the state of the rectum in healthy persons, has made me acquainted. In the course of these examinations, it often occurred that on passing the gum elastic tube into the flexure, the escape of flatus but not of fluid feces, the unresisting feel communicated to the hand, and the unsoiled appearance of the instrument, when withdrawn, satisfied me that no feces were then in the flexure; yet, on re-introducing the instrument, in four or

five minutes after, I almost uniformly found that more or less fluid feces passed through it, that its upper extremity was coated with solid feces on being removed, and that the person discharged a solid stool soon after.

"In arriving at this stage of the subject, evidence has been adduced which appears to bear me out in concluding, first, that the cæcum is considerably distended before it is unloaded; secondly, that the whole of the mass by which it is distended, and no more, is transferred at each time that it is unloaded; thirdly, that at the moment of going to stool, there is generally one mass of fecal matter in the cæcum and another in the sigmoid flexure, and consequently that these may be considered as the measure of the quantity discharged when the bowels are said to be freed; *fourthly, that as two distinct acts of expulsion are always required before a healthy person finds his bowels sufficiently freed, the capacity of the cæcum may be received as the measure of that of the rectum.*"

The compression and detention of the feces in the cæcum by the confined gases in the arch of the colon, is certainly a novel idea, if not an ingenious one; but we apprehend that the extrication of the gases from this neutral ground is not confined entirely to the time of defecation, or else our auditory and olfactory nerves have often deceived us. That the contents of the cæcum only move forward to the sigmoid flexure, when the latter is emptied into the rectum, thus forming the second edition of defecation, we will not positively deny, though we candidly confess that we are not prepared to admit its correctness. The fact, if constant, of there being two or even three distinct portions of feces evacuated at each period, would not prove this position, since the same phenomena might be expected from two or three different expulsive efforts of the rectum and sigmoid flexure alone. The head and the body of a child are not usually expelled by a single effort of the uterus and abdominal muscles. Moreover, in healthy and natural defecation, the whole consists, very frequently, of one long and connected cord of solid feces. Whoever has had the curiosity to attend to this rather unsavoury, but philosophical subject, on the banks of the Ganges, or other streams in India, or on the gangways of a ship, on a long voyage, while contemplating the blue waters rushing along the sides of the vessel, must have had numerous opportunities of confirming this last observation. Again, those who have attended to this subject, must have had ample demonstration, during the

operation of purgatives or lavements, that the transverse arch of the colon is not always occupied by air alone. The seybala that so frequently present themselves on such occasions, show that the cells of the colon are too often, and too long inhabited by lazy and unprofitable tenants.

But Dr. O'Beirne has placed himself, we think, in a very awkward dilemma. He tells us that the contents of the cæcum are kept from ascending up and along the colon by the confined gases, till the contents of the sigmoid flexure are evacuated, when the gas escapes, and *then* the cæcum is evacuated, and its contents sent forward and evacuated also by the expulsive efforts. Now he has not shown us how the sigmoid flexure of the colon gets its *first* cargo of contents every day!! We cannot conceive how the author can extricate himself from this embarrassment, unless he maintains that the contents of the cæcum, when transferred to the sigmoid flexure, remain there till next evacuation. This cannot be his meaning, according to the passage marked in italics, respecting the "two distinct acts of expulsion," at each complete process of defecation.

It might not be very difficult to maintain that the cæcum is a kind of cess-pool, whose contents daily overflow into the transverse arch of the colon, where there is a series of smaller cess pools (the cells of the colon) still farther to delay the feces for the extraction of any nutritious particles, till at length the sigmoid flexure of the colon, and the rectum become charged and stimulated to expel their contents.

From physiology our author naturally directs his attention to pathology, the knowledge of which is essential to the success of therapeutics. He justly observes that irritation in the digestive tube itself—in either of its nervous centres—or in organs with which the tube sympathises, may be so mild as merely to hasten the process of defecation, in the form of slight diarrhoea—and if in a greater degree, the effect will be felt most in that part of the tube which is most muscular and excitable. Such effect he thinks will chiefly appear in the rectum, already in a state of contraction, and now having its contractile force augmented—hence constipation of the bowels more or less in degree.

"If the constipation proves obstinate, the patient feels perhaps no inconvenience, and continues to indulge his appetite as usual, until, at length the cæcum and colon become so distended that they can no longer admit the contents of the ileum, and then pain in the bowels, severe twist-

round the umbilicus, vomiting, and, in short, symptoms of colic ensue. If this state be suffered to continue for a certain length of time, solid, fluid, and gaseous contents soon cease to find an entrance into the colon, accumulate in the ileum and other small intestines, rouse these intestines, and also the abdominal muscles into strong action, and thus finally become the cause of their own expulsion by the mouth, the only action in which they can pass, or encounter least resistance. In this way, and without in any manner recurring to the gratuitous assumption of an inverted or antiperistaltic motion taking place, stercoraceous vomiting is superadded to the other symptoms, and colic is converted into ileus or ileac passion. Lastly, if the patient be not relieved from this state, he will either die, exhausted by excessive pain and debility, or the following series of effects will be produced: the distension of the whole of the intestinal canal goes on increasing, until the laminae of the mesentery become forcibly separated just as they do to invest the intestines, and the sub-serous tissue is either unnaturally stretched or torn; this tissue soon becomes the seat of inflammatory action, and thus, according as this action may extend itself along the mesentery, or confine itself to the serous coat of the intestines, will ileus be converted into either peritonitis or enteritis." 29.

The chief obstruction is considered by our author as existing at the upper part of the rectum, between the pouch and the sigmoid flexure of the colon, and this point he conceives to "be much more exposed to both mechanical and chemical irritation than any other part or point of the intestinal canal."

"Indeed, when we consider how frequently accumulations take place in the flexure from the common but pernicious habit of disobeying natural calls to stool; how commonly stimulating and improper articles of food, and the most drastic medicines are used; and how often the hepatic and intestinal secretions become, from these and a variety of other common causes, of a highly vitiated and irritating nature, it is scarcely possible not to admit that this particular part of the intestine is in a very constant state of excitement and spasm. Hence it is, that spasmodic stricture of such frequent occurrence in this particular situation; and that constipation is so general a feature of disease. It is in this way also that the narrow neck or contraction so often observed, in subjects of all ages and of both sexes, at the extreme termination of the sigmoid flexure, is to

be explained, and not by considering it the result of congenital malformation, as Mr. White of Bath, and more recently, Mr. Salmon and Mr. Calvert of London, agree in believing. Previous to the formation of spasmodic stricture in this situation and in this way, that particular part of the mucous membrane which lines the stricture, is far more exposed than any other to the irritation arising from the weight, impulse, and perhaps acrimonious nature of the contents of the flexure; but it becomes still more and more exposed after the formation of the stricture, until at length it is excited to a mild kind of inflammatory action, which soon extends to the corresponding portion of the muscular coat, but is prevented from extending further by the effusion of coagulable lymph, and the formation of adhesions between the two coats; thickening, and of course, coarctation of the parietes of this part of the canal follow, and thus spasmodic is converted into organic stricture." 33.

Time, he thinks, and natural predisposition concur, in giving a tendency to such a state to degenerate into a scirrhus and malignant stricture. This state is accelerated, he thinks, by the pressure of accumulated masses in the sigmoid flexure of the colon, obstructing the return of blood from the hæmorrhoidal vessels.

Besides the forced state of contraction in the rectum, as a cause of costiveness, there are others, our author observes, such as strangulation or invagination of portions of the intestinal canal—the presence of intestinal calculi—collections of fruit-stones in the bowels, forming nuclei for concretions—a retroverted, scirrhus, or a gravid uterus—the formation of large tumours external to the rectum, besides many others growing on its internal surface. All these act, in a great measure, mechanically, and their removal or mitigation require various and different modes of treatment.

The colon, Dr. O'B. remarks, is rarely found to be the seat of obstruction. The contractions which we sometimes see in this gut, are, he thinks, not seldom the "effect of the purging which so often occurs, either immediately before or after death." This is surely a forced, as well as fanciful conclusion. The following is more rational.

"But if the descending colon should happen, from any cause, to discharge into the sigmoid flexure a greater quantity of matter, and in a more rapid and sudden manner than usual, the latter, by making a sharp and nearly complete turn upon its own axis, may become so twisted as

to cause a very perfect and formidable species of obstruction. It is obvious, however, that the twist so formed is not likely to occur near to the rectum or fixed point, or in the distended portion above it, and that it will take place much more frequently at the upper and less distended portion of the flexure. It is also obvious that this twist could not be produced in the first instance, nor, in the next, exist for a longer time than the expulsion of the offending matter would require, if the rectum did not remain contracted, and firmly oppose the escape of the contents of the flexure." 42.

Although the mucous membranes are much more prone to ulceration than adhesion, yet the adhesive effusion occasionally takes place in the rectum, during a highly inflamed state. But before the adhesion can acquire consistency, the contents of the colon, from above, either completely break up the effused lymph, or extend it into the form of membranous filaments, crossing each other, as chance may determine, in various directions.

"In this manner is formed that kind of filamentous network which has been occasionally found in the rectum, and which, although it permits the escape of all the fluid feces and flatus, effectually obstructs the discharge of all solid excrement, and ultimately causes a sort of constipation which requires the obstructing filaments to be divided before it can be removed. One of the most remarkable instances on record of obstruction from this cause will be found detailed by M. Renaudin, in the *Dictionnaire des Sciences Medicales*, article 'Constipation.' It appears that the subject of it, a medical officer of the French navy, had suffered severely from obstinate constipation since his birth, and up to the 44th year of his age, when it caused his death; and that on examining the body, the anus was found excessively dilated, the cavity of the rectum crossed by a fibrous partition situated a little above the anus, and that above this again the rectum and the other intestines were so enormously enlarged as to fill the cavities of the pelvis and abdomen, and to contain thirty kilogrammes, or more than eighty pounds, apothecaries' weight, of a blackish brown, pultaceous, and offensive matter." 44.

The pendulous position of the belly in advanced age, and the weakness of the expelling muscles, contribute also to constipation. The compaction of hardened feces in the rectum, our author thinks, is very rare, and only observed in paralytic or very aged, infirm, and sedentary persons.

Mr. Copeland has described another cause of constipation—hypertrophy of the sphincter muscle, with inflammation, causing a most painful disease, the involuntary contractions of the sphincter being compared to the pains of labour.

"They frequently come on immediately, but more usually about an hour or more after each evacuation, and sometimes continue till the succeeding one; in some instances the complaint goes on to produce suppuration, and consequently fistula; sometimes the irritation is propagated to the neck of the bladder, and produces a retention or impediment to the urine. I have seen, in two cases, extend up the canal, and give rise to attacks of violent colic, and an increased secretion from the whole inner membrane of the gut, so that an evacuation of mucous cylinders of the size of the part of the canal where they are formed, or of detached pieces of mucus, are seen mixed with the feces; yet all this has been finally removed by the bougie. I have seen it followed by a constant evacuation of shreds of coagulable lymph, which has continued through life, and produced the greatest distress. When this substance accumulated in the bowels, it was accompanied with pain, which continued until it was discharged." 51.

The principal means of relief are opium and the bougie. Dr. O'B. conceives that all Mr. Copeland's cases afford evidence of stricture at the upper extremity of the rectum, and of great irritability and sensibility, not merely of the sphincters, but of the whole bowel. The bougies in Mr. C's cases, were usually passed up six or seven inches. Dr. O'B. does not mean to deny the existence of spasmodic stricture of the sphincter ani, as an independent affection, since Baillie, White, Dupuytren, Boyer, Colles, and many others have settled that question; but he maintains that the recorded descriptions of such cases do not show that they were attended by constipation.

"It appears then from all that I have said and advanced on the subject, that, with the exception of the comparatively rare instances in which alvine obstruction is the consequence, either of the cavity of the rectum being traversed by membranous filaments, impacted with indurated feces, filled by tumours and other excrescences, or obliterated by the pressure of tumours or of displaced or morbidly enlarged organs external to it, constipation is invariably an effect, and nothing more or less than an effect of an unusually contracted and impervious condition of the rec-

produced by a more than usually firm and vigorous action of its own powerful and highly irritable muscular parietes, and maintained by a variety of favorable circumstances already explained. And it does not appear that even that variety of the affection which arises from twisting of the sigmoid flexure, forms an exception to this general rule." 54.

He now proceeds to the curative indications for the treatment of constipation, confining his observations to the disease as it arises from ordinary causes.

Assuming, then, that the rectum is contracted, and the colon distended with feces and flatus, an obvious indication, he observes, in the treatment of constipation, "is to mechanically dilate the rectum, so as to open and form a free communication with the colon, and thereby not only give relief, but circulation to the matter so confined." This plan of treatment, he avers, will be found to exceed all others in the important points of safety, certainty, and expedition.

This plan consists, as the reader must have long since anticipated, in the introduction of a large sized gum elastic tube through the anus into the sigmoid flexure of the colon, and, after giving vent to such flatus and fluid feces as may happen to escape, adapting to it a proper syringe, and drawing up such purgative fluids as circumstances may make it necessary to select. The first instrument that I employed for the purpose of dilating the rectum, was a gum elastic catheter of the largest size; the next was the tube of the stomach pump; but I soon found that these, in consequence of having eyes at the sides, but no opening at the point of their upper extremity, caused the fluid to be expended on the sides, and not driven a sufficient distance up the cavity of the bowel; accordingly I cut them across below the eyes, and in this state used them, having first rubbed oil into the cut surface. Of late years I have been in the habit of using an apparatus, which consists of two gum elastic tubes and a glass syringe, and may be described thus: one of the tubes is of the largest size, eighteen inches long, open at both ends, bulbous at the upper extremity, and has, at the lower, a brass ferrule made to receive and accurately fit the short pipe at the end of the syringe. The other tube is by one third, shorter, and, in all respects, the same as that attached to the horizontal pipe of the stomach pump. The syringe has, on one side, a spring lever so constructed, that, when firmly pressed upon, it turns a simple stopcock, and forms a communication between the chamber and

the short tube at the extremity, while it closes that which had previously existed between the chamber and the short tube situated at one side; in short, it is Weiss's syringe, as improved by the late William Lloyd, an obscure London artist, who added the spring lever, an addition which has perfected, and greatly increased the facility of working the instrument. The manner of preparing and using this apparatus is very simple. If the tube has been kept in a warm situation, it will not be sufficiently stiff for the purpose, and will, in all probability, become doubled on itself in the act of introducing it. Whenever this occurs, it should be placed for a few minutes in cold water, and afterwards in a current of air until it acquires the necessary degree of stiffness; its upper extremity is then to be well oiled. The syringe should be placed for a few minutes in warm water, be then removed, and well dried, afterwards have the shorter tube fixed on its horizontal pipe, and be filled with the fluid intended to be injected. In filling or charging it, either the short pipe at the end of the instrument, or the extremity of the short gum elastic tube may be immersed in the fluid, but whichever we may happen to use, should be steadily kept beneath the surface, in order to avoid the inconvenience of drawing in air. With the same view, also, it will be better to draw up the piston slowly and evenly, than in a rough and rapid manner. The tube and syringe being thus prepared, an assistant is to be directed to hold the basin containing the remainder of the fluid to be injected, and when the syringe is to be recharged, to keep the extremity of the smaller gum elastic tube beneath the surface of the fluid; a chamber-pot is to be at hand to receive any fluid feces that may escape through the tube, and, according to the circumstances of the case, either a close-stool or a bed-pan is to be prepared and ready for immediate use. Having made these arrangements, all of which will be found very useful in their way, the patient is to be turned on his left side, directed to draw up his knees, and the point of the tube, directed by the fore finger of the right hand, is to be inserted into the anus, which is often so tightly constricted as to make it a matter of some difficulty, and requiring some force to effect its insertion. This being accomplished, the instrument is to be directed and firmly pressed upwards, inch by inch, and as nearly as possible in the course of the intestine. If the expulsive efforts be violent, which will occasionally happen, it will be advisable to yield somewhat to them, and take advantage of their intermissions to pass it

higher and higher. When it has reached, in this way, the height of 8 or 9 inches, the opposition to its further passage will be found considerably increased; but instead of yielding to it, the pressure upward must be gradually increased, until such time as the resistance is completely overcome. The moment that this occurs, the point of the instrument passes rapidly onwards, and as if through a very narrow ring, and the escape of either flatus or fluid feces, or of both, takes place, gives immediate and greater or less relief to the patient, and assures the operator that the upper extremity of the tube has entered the sigmoid flexure. But if neither flatus nor fluid feces should happen to escape, at this time, he may be assured that the instrument is blocked up with and embedded in a mass of solid feces. Indeed, the subsequent steps of the operation will remove all doubt of its having been so circumstanced, for, in all such cases there is greater difficulty than usual experienced in discharging the syringe, and the tube, on being removed, will be found to have its cavity blocked up, and several inches of its surface coated with feces. The next step is to insert the short pipe at the extremity of the syringe into the ferrule at the lower end of the tube, and by pressing firmly upon the spring lever with the left thumb, and then depressing the piston, to discharge the contents of the syringe into the colon. The degree of force necessary to depress the piston will be found to be moderate, except in the cases just noticed, where the tube is plugged up with solid feces, and embedded in a mass of the same; but even in these, the resistance soon gives way before the impetus of the injected fluid. As soon as the syringe is discharged, the thumb is to be removed from the lever, the point of the shorter tube to be turned into and immersed in the remainder of the purgative fluid contained in the basin, the piston drawn up, the syringe filled, then discharged as before, and so on until all that remains of the fluid is injected. After the first discharge, the patient will express a desire to go to stool, and be very urgent to be allowed to do so after every succeeding one; but the effect will be rendered much more complete by not complying with his intreaties, and persevering until the necessary quantity is thrown up, when the tube is to be slowly withdrawn. The moment that this is done, he will rarely fail to hurry to the night-chair, and discharge a copious, and, in many instances, an enormous stool." 64.

Few of our readers, we imagine, will have perused this long detail of operations, without hav-

ing repeatedly asked themselves the question, this then the remedy for constipation of the bowels? The operation, in every instance, must require one able surgeon and an assistant! How much this practice ever to become general? How many patients laboring under constipation of the bowels (especially females, who are the most numerous) will submit to it? Not one in one hundred! It is clear that the remedy is only adapted to dangerous cases, where the common means fail, and where the life of the patient is in danger, or, to a few obstinate cases in men, who may be inclined to submit to much trouble and inconvenience to get rid of an obstinate evil.

Dr. O'B. informs us that he has now employed this mode of treatment for nine years, and with decided and unexampled success. This we do not; but still we think the practice can never become general, because it cannot be put in execution by the patient. Dr. O'B. next proceeds to the narration of cases in support of his doctrine and practice, some of which we shall condense, as they are far from being devoid of interest.

Case 1. This was a lady about 40 years of age, subject to gout. Our author found her, in February, 1824, with both knees swelled, red, and painful, preceded by nausea, eructation, and loss of appetite. These symptoms were abated in two days, by antiphlogistics and colchicum. The bowels were opened, and the medicines continued. On the fourth morning she awoke with intense pain in the region of the stomach, followed by incessant vomiting. The gout had retreated from the joints, and she was cold in the extremities, with sunken countenance, quick weak pulse, and tenderness in the epigastrium. Bowels not moved since the preceding evening—"in short, the case was evidently an example of metastasis of gout to the stomach, and the patient's life appeared to be in imminent danger. Dr. O'B. endeavored by enemata, and various other means, to evacuate the bowels, and to allay the pain and irritability of the stomach, but all in vain, though he had the able assistance of Dr. Crampton. As a last effort, a large enema composed of scammony, jalap, colocynth, &c. was attempted to be thrown up by the nurse, but much force was necessary, and the contents returned as fast as thrown up. Next morning a tube was introduced, and passed up into the sigmoid flexure, as described in the text. A limpid serous fluid flowed rapidly from the tube till three imperial pints or more were discharged. The patient experienced sudden and decided relief. During

remainder of that day and the next, the same and of fluid continued to be discharged, unmixed with any feculence. She was quickly restored to health.

Remarks. This case is fairly considered by our author as a metastasis of gout to the mucous membranes of the primæ viæ, producing such a morbid secretion as to make it somewhat resemble cholera. We think that few observant practitioners will doubt that the immediate cause of this retrocession of gout to the stomach and bowels, was the colchicum.

Case 2. This is headed "Spinal Irritation," and the subject of it was a young lady who, from the pressure of tight stays, became affected with pains in the back, shooting round to the stomach and other parts, aggravated by food. This induced her often to fast for 12 hours, and then eat extremely little. The bowels became very constipated, and she frequently vomited up what she ate. In December, 1830, the constipation began to resist enemata and other means, and to produce great distress. In May, 1831, she came under Dr. O'B.'s care, and affirmed that she had passed neither fæces nor flatus for six months, notwithstanding the various means that were employed.

"At this period, her state, in other respects, I found to be as follows: she complained of total want of sleep, and the impossibility of procuring any by artificial means. The irritability of her stomach was such, that the only sustenance she could take, or had taken for two months previously, consisted of a table spoonful of milk and some water taken frequently in the day, but vomited up nearly as soon as it was swallowed, apparently little altered in quality or diminished in quantity. She was very weak, but could walk about with assistance, and though thin, not as emaciated as might be expected. No unusual fulness or tenderness on pressure was perceptible in any part of the abdomen, her pulse was weak but regular, her tongue covered with a cream-colored fur, her menstruation, as throughout her illness, regular as to periods, quantity, and quality, but attended with severe pain." 78.

From the success which our author had obtained on various other occasions, he confidently promised to remove, not only the constipation, but all the other symptoms. In the latter, however, he failed. The gum elastic tube having been introduced, and nothing coming away, it was withdrawn, and its extremity was found to be covered with solid fæces.

"It being now clear that the sigmoid flexure

contained a mass of solid excrement, the tube was again introduced, and in doing so the same difficulty was experienced, and it became necessary to use the same degree of force. Still no flatus passed off. The syringe was now adapted to the tube, and the whole of the injection thrown up. While this was doing, she became very urgent to be allowed to go to the night-chair, but her intreaties were not complied with until the whole of the fluid had been injected. The tube was then removed, and in less than two minutes she passed one of the most enormous stools I have ever seen; it nearly filled a large sized chamber pot, was altogether solid, perfectly natural looking, and arranged in remarkably thick coils. Soon after, she expressed herself as being greatly relieved from the spasms which she had so long felt in the stomach and bowels, but complained of feeling a great degree of weakness." 80.

Although considerable quantity of fæces came away next day and afterwards, she continued to pass sleepless nights, and to be harrassed with vomiting and spasms—milk, in spoonfuls, being the only nutriment she could take. In short, her situation was worse than when our author first saw her. At length it was discovered that there was a tender portion of spine, from the sixth dorsal vertebra downwards. Leeches were immediately applied, and then blisters, with sensible relief. The tartar emetic ointment was then rubbed along the spine, and strong pustulation produced. From that time the stomach became retentive—the rectum gradually ceased to offer resistance to the tube—and the necessity for introducing it occurred less frequently. Sleep returned by degrees, as did strength. She is now in robust health.

Remarks. This case is certainly very interesting and instructive.

"Morbid irritation, conveyed directly from the spinal marrow, through the medium of one of its offsets, the hæmorrhoidal nerve, to the rectum, caused that intestine to contract in a powerful manner, and in this way produced such an accumulation of feces in the sigmoid flexure of the colon, as would, no doubt, have ultimately produced ileus or colic, or perhaps enteritis, if the state of the patient's stomach had not incapacitated her from taking any greater quantity, or any other kind of food. That such was the cause of the singularly obstinate constipation which prevailed, and the precise mode in which it was produced, is obvious from the different states in

which the rectum was found before and after the discovery and removal of the irritative condition of the spinal cord; and as to the other phenomena of the case, the irritability of the stomach and spasms of the abdomen, they are at once explained by the intimate nervous connexions which the spinal cord is known to have with the parts so affected." 83.

CASE 3. *Mania.* This case was communicated to our author by Dr. M'Dowel, one of the surgeons of the Richmond Surgical Hospital. A young lady, whose catamenia had become suppressed, attempted to cut her throat on the 21st of February, 1830. The bowels being constipated, purgatives were ordered, and acted freely. She remained sullen for several days, and then became violent, with constipated bowels. Calomel and colocynth failed to act, as did castor oil and purgative draughts. Enemata, exhibited in the usual way, failed also. After seven days of obstinate constipation, the tube of the stomach pump was passed up into the sigmoid flexure of the colon, when a loud burst of flatus, followed by large discharges of liquid fæces took place, with decided and general relief. From this period she recovered rapidly and perfectly.

CASE 4. *Narcotic poisoning.* To a boy, 6 years of age, a cup of what was considered to be senna tea, was given to open his bowels. He immediately cried out that he had got the cholera—became delirious, convulsed, and attempted to bite himself and others. A similar dose had been given to one of his sisters, followed by similar symptoms, which ceased on full vomiting taking place. It was now ascertained that, instead of senna, the herb and seeds of stramonium had been exhibited. An emetic was therefore quickly given to the boy, producing copious vomiting; but without any sensible relief. The next object was to free the bowels, and fortunately our author had with him his improved self-injecting apparatus. The tube being introduced, and a purgative enema having been thrown up, "a great quantity of flatus and of solid dark green fæces was discharged." This measure, with some others of a general nature, produced decided and permanent relief.

Remarks. Although this case is interesting in itself, we do not think it proves much in the question agitated by the author. There is no proof that an enema exhibited in the usual way would not have been equally successful.

CASE 5. *Abdominal Tumours.*—An aged gentleman, accustomed to hunting and field sports, gradually lost his appetite, became costive, flatu-

lent, and unusually prominent in the abdomen. At length, a tumour appeared in the left side which increased in size, and became painful. Upon careful examination, our author came to the conclusion that it consisted of indurated fæces. He accordingly introduced the tube, and threw up a turpentine enema. Some flatus and hardened balls of fæces came away. Purgatives were then exhibited by the mouth, but no relief was obtained. Another medical gentleman now joined in consultation, and disagreed with our author respecting the nature of the tumour, and recommended external friction, in addition to purgation. This plan also failed, and surgeon Crampton was added to the list of consultants. He agreed with Dr. O'Beirne, and croton oil was exhibited, with other purgatives. By steady perseverance, several scybællæ were dislodged daily, not much larger than peas, the tumour gradually lessening in size, and eventually disappearing on the evacuation of a large lump of excrement, followed by a quantity of fluid fæces. He was much relieved—treated afterwards by purgatives and tonics, and returned home in tolerable health soon after.

Remarks. We have been often deceived by these congregated masses of hardened fæces in the colon, and have taken them for organized tumours of a much more formidable character. The same mistake is made by others, and we have no doubt that cures are often attributed to men and measures, where little real credit is due to one or the other.

CASE 6. This was a young gentleman who had been long in bad health, and whose digestive organs were in a highly disordered condition. His primary history is too long for detail, and we shall come at once to the period when he was taken in charge of by our author. This was on the 1st of Oct. 1831.

"His countenance was then anxious and pale, his pulse regular, but weak, his tongue covered with a brown fur, his urine scanty, and high colored, and stained the chamber-pot with a delicate pink color. He had had no discharge of any kind from his bowels for forty-eight hours, and, for several days before, he regularly vomited up every thing he ate or drank in about two hours after it had been swallowed. On examining the abdomen, which was found to be greatly swelled and tympanitic, yet not the least painful on pressure, he directed my attention to a tumour of the size and shape of an orange, situated in the left iliac region, near to the anterior superior spinous process of the ilium, and extending al-

and below this process. It was very moveable, firm, hard, rather unequal, free from pain, and easily embraced by the fingers and thumb. He complained of 'frequent rumbling of wind in the bowels, which he could not expel, and which seemed to be stopped at the tumour,' and also of a sense of weight and uneasiness in the lumbar regions. My first step towards his relief, was to pass the tube into the colon. This being effected, but with unusual difficulty, a considerable quantity of wind, and some fluid fæces escaped, and gave him such relief that no injection was thrown up, and he was directed to take a drop of croton oil immediately, to have a large belladonna plaster applied over the abdomen, and to take, at bed time, a diuretic draught, composed of two ounces of infusion of juniper, a drachm of nitrous æther, and a scruple of acetate of potash." 100.

For two or three days he seemed rather better, but on the 25th he was worse than ever. The tube was again passed with difficulty. A quart of warm water was thrown up and retained. Suddenly the patient raised himself in bed, and seemed to be dying, from some violent internal struggle. In a few minutes the stomach discharged more than three quarts of semi-fluid feculent matter. When the vomiting ceased the pulse rose--he took some brandy, and had a tolerable night. He expired the next day, during a fit of vomiting.

The following were the appearances on dissection.

"The stomach, duodenum, jejunum, and the two upper thirds of the ileum, enormously distended with fluid feces, but no morbid alteration in their coats, except at a point to be mentioned hereafter. The lower third of the ileum, the cæcum, the whole of the colon, and the rectum, as far as its pouch, contracted to the greatest possible degree, but also free from any morbid condition of their coats. A large tumour, situated in the upper part of the left iliac fossa, and formed by a remarkably thick layer of firmly organized coagulable lymph enveloping, first a turn of the ileum greatly thickened in its parietes, for nearly the extent of two inches above the commencement of its inferior third; secondly, about two inches of the sigmoid flexure in a highly contracted, but perfectly sound state. In the interior of this turn of the ileum, and on that side of it next to the sigmoid flexure, a circular opening, lined with a dark red fungous membrane, large enough to admit the thumb, and leading into a kind of cavity situated between the ileum

and sigmoid flexure; and the passage from the upper portion into the lower third of the ileum so narrow as scarcely to admit a good-sized quill. All the other viscera of the abdomen and pelvis perfectly sound." 103.

Our author next makes some observations on strangulated hernia. With few exceptions, he conceives that "strangulation is always caused by the prolapsed portion of intestine becoming so distended, generally by the gaseous, and very rarely by the fluid or solid contents, as to be pressed forcibly against the margins of the opening or ring, and to be no longer capable of re-passing through it, and returning into its natural situation in the cavity of the abdomen." After passing some strictures on the application of ice, bleeding, and tobacco enemata, our author proposes his own remedy.

"The question; therefore, proposes itself, is there any other more certain mode of accomplishing this object, that has not been either proposed or tried, and that is, at the same time, free from all objection? It appears to me that there is. It is this. To introduce a gum elastic tube into the colon, and to leave it there until the large intestines, and eventually the hernial tumour are emptied of their gaseous contents. If the bowels happened to be well freed, or to contain but a small portion of solid feces, at the time the strangulation took place, success might reasonably be expected from this mode of proceeding; and if they happened to be loaded with solid matter at that time, it would only be necessary to introduce the tube more frequently, and at intervals of a few minutes between each introduction, first, to empty the sigmoid flexure; secondly, the cæcum; thirdly, the hernial tumour, in order to effect the object in view." 113.

As it is but recently that Dr. O'B. adopted this idea, the facts which he is able to offer are not numerous. As the subject is important, we shall condense the greater number of these into as small a compass as possible.

CASE 8. A female, 20 years of age, was admitted into the Jervis Street Infirmary, 16th Aug. 1831, with the following symptoms:

"On the right side, immediately below the pubal attachment of Poupart's ligament, and slightly ascending over this ligament, she has a tumour which is as large as a walnut, tense and painful, yet not discolored. It imparts all the feel of an entero-epiplocele, and is attended with the following symptoms, viz.: anxious and painful expression of countenance, jactitation, nausea, vomiting,

constipation of four days' duration, pain on pressure of the abdomen, particularly over its umbilical and hypogastric regions, tongue brown at its base and along its centre, great thirst and heat of skin, pulse 100, hard and contracted. She states that at 9 o'clock on Sunday morning the 14th, she had been pumping water to supply her master's house; that at 2 o'clock in the afternoon, she was seized with sickness of the stomach and violent pain in the belly; that she vomited repeatedly during the evening, retired early to bed, and there, for the first time, discovered a tumour in her groin, and pain and difficulty in extending the right thigh and leg. She adds that she went the following morning to the next apothecary, who gave her some pills and an injection, but without affording any relief. The apothecary she mentions has had the humanity to attend her to the hospital, and this gentleman states, that, suspecting the nature of the case, he gave her pills of calomel and cathartic extract, and a tobacco enema, and that he could not be deceived in asserting that he saw her vomit stercoraceous matter. It does not appear, however, that she has had what could be considered as fecal vomiting since her admission into the hospital." 116.

She was bled ad deliquium, had tobacco enemata, and the taxis was employed for some time without effect. The tube was then passed into the colon, when a considerable quantity of flatus escaped, with great diminution of the hernial tumour, which now appeared to be chiefly omental. Nausea and vomiting ceased—the pain was inconsiderable, and a mild enema was administered by the tube. In half an hour the tube was re-introduced, and then came away a pint of fetid fluid faeces. Repetitions of the enema with cathartics by the mouth, completed the cure.

Dr. O'B. quotes a case from Mr. Copeland's work on the rectum, in which a strangulated hernia was quickly reduced by the operation of dilating the rectum for the removal of a stricture. We shall quote the case.

CASE 9. "A lady, about 40 years of age, who had been affected with an umbilical hernia for many years, was seized with violent pain in the abdomen and vomiting, and had not had any evacuation from the bowels for seven days. The rupture was painful to the touch, was of the size of a very large orange, and had been incapable of reduction for twenty-four hours. Her pulse was quick and weak; she had been taking large doses of calomel and other strong purgative me-

dicines, without effect. In this state Mr. Ford was called to her, and I saw her with him; the rupture could not be returned by any effort that was thought prudent, and the vomiting, together with hiccough, was increasing in severity. She was bled, and directed to take some pills, with calomel and extract colocynth; and an injection of the tobacco fume was, with considerable difficulty, thrown up the rectum. It was proposed, that if these means failed of giving her relief, the operation to return the hernia should be performed without further delay.

"She now happened to tell us that she had been for many years of so costive a habit of body, that she could never pass her stools without great pain and difficulty, and seldom without the assistance of glysters, and that they were always very small in size.

"These circumstances led to a suspicion that the disease was not in the hernial sac, but in the rectum; and, on passing the finger to examine the gut, a firm indurated stricture was discovered about two inches up the intestine, which would not admit the point of the finger to pass it.

A rectum bougie, of a small size, was introduced high up the gut, and retained there about ten minutes. Soon after it was withdrawn, there was copious evacuation of the faeces, the vomiting ceased and the rupture soon returned spontaneously; in short, all her complaints disappeared, and she was in the same state as before the attack. By persevering in the use of the bougie, the stricture gradually enlarged, and in a fortnight she could pass her stools better than she had done for many years: she continued, however, daily to pass the bougie for about a month, and then used it only occasionally. This is now seven years ago, and I saw her very lately for another complaint when she informed me that she remained perfectly well of the stricture, but from fear of a return of her disease, rather than from necessity, she now and then passed the bougie, for a short time, and withdrew it again." 126.

The reader has now before him all the information on the subject which has come within my reach, and he hopes that the facts and reasonings will be sufficient to induce him to give the plan a full and fair trial; also, that he will not condemn it, should it fail in those cases where the neck of the sac is found to form the stricture where the strangulated intestine is adherent to the sac, or filled with indurated faeces, or where the case is merely one of epiplocele.

"The proposed plan can do injury whatever causes little or no delay to the employment

her means, and may be tried immediately after a reasonable attempt at the taxis has been made and has failed. Should the first introduction of the tube not give exit to either flatus or fluid feces, and should the peculiar feel communicated as well as the previous history, lead us to suspect the presence of a solid mass of feces in the sigmoid flexure, the enema catharticum, with the addition of an ounce or two ounces of castor oil, could be thrown up, in order to bring away this mass. If after the bowels have been moved, no favorable change takes place in the hernial tumor, the tube should be again introduced, and if the same happens, the same process should be gone through, and repeated till the bowels are completely freed. Once this object has been accomplished, it is to be presumed that another introduction of the tube will either enable the intestine to return proprio motu, or place it in a position to be returned by the taxis." 128.

He does not recommend the tobacco enema on these occasions, as he thinks it does more harm than good, by paralyzing the muscles of the intestine.

CASE 10.—*Colic*. We shall give this case in the author's own words, as it is short.

"Late in the evening of the 6th of Sept., 1826, a servant of Mr. W. K., of Mecklenburgh Street, called to request my immediate attendance on his master, who was, he said, 'dying of cramps in his stomach.' I found the gentleman sitting up in bed, doubled forwards, and complaining of the most acute pain in the epigastric region; his countenance was pale, contracted, and expressive of great agony, and his pulse scarcely to be felt. On inquiry, I found that his bowels had not been moved for many days; that he had been subject for years to attacks of what he called cramps in the stomach; that brandy, laudanum, æther, and other such remedies, had always relieved him; but that, on one occasion, he had had recourse to them without experiencing the slightest relief. Having brought the tube with me, I proceeded at once to pass it up the rectum. The obstruction to the passage was inconsiderable until it reached a height of eight or nine inches, when it became necessary to press up the instrument much more forcibly, in order to make it enter the colon. The moment that this was effected, a burst of flatus escaped through the tube: the patient instantly exclaimed, 'I am quite relieved,' and both his look and manner declared that this was the case. No injection being at hand, the tube was

withdrawn, he was directed to take a purgative draught, and to have a fetid enema administered as soon as possible. Soon after his bowels were freed, and he was perfectly well the next day. From that period to the present I have ascertained that he has not had any return of the cramps, although, according to his own account, he had previously been accustomed to have two or three attacks of them every year." 132.

A case of enteritis is next related, in which the tube gave relief after several other and powerful means had failed. Some other cases of the same are communicated by friends.

CASE 11.—*Puerperal Fever*. The following case was communicated to our author by Mr. Gregory, Master of the Coombe Lying-in Hospital.

"Johannah Barnard, aged 25, was carried to the Coombe Lying-in Hospital, on the 5th of March, 1828, laboring under such severe pains in the groins, and all over the abdomen, especially about the umbilical and hypogastric regions, as to be unable to bear the slightest pressure. Pulse small, and difficult to be felt, countenance extremely anxious, great prostration of strength, bowels confined, great thirst, &c. States herself to have miscarried a few days before, in the 4th month of pregnancy, and says that she was previously strong and healthy. 20 ounces of blood were taken immediately from the arm; an enema of turpentine; abdomen to be constantly fomented; three grains of calomel and a quarter of a grain of opium to be given every hour; enema to be repeated in three hours, and if no stool takes place, to have a castor oil and turpentine draught.

6th. Feels somewhat easier. Has had no stool. Pills, enema and draughts to be continued.

7th. Passed a restless night, had one or two scanty motions; mouth sore, and in great pain; passed the œsophagus tube nearly its whole length up the anus, and through it injected five or six pints of warm water, some oil, and about a wine glass full of turpentine. In a few minutes after withdrawing the tube, an enormous quantity of feces came away, giving immediate and decided relief." 144.

Other cases of similar tendency are communicated by Mr. O'Hara, resident accoucheur of the same establishment:

DYSENTERY.

Dr. O'Beirne has dedicated a considerable space to this disease, tracing the opinions of phy-

icians respecting it from Hypocrates downwards. To these worn out subjects we need not allude. All are now agreed that, when dysentery proves fatal we find inflammation and ulceration in some portion of the intestines. The ulceration is, of course, the consequence of inflammation—and the inflammation itself is but a secondary link in the chain of causation, there being first an increase of irritability in the lining membrane of the bowels, followed by an afflux of blood to that surface, and a great augmentation of secretion. We agree with Dr. O'B. that a very general opinion prevails that dysentery is an inflammation of the lining membrane of large intestines only. But the opinion is unfounded; for inflammation, or even ulceration, are very frequently, if not always, found in the ileum, especially about its lower portion. The following rationale of dysentery is not new, as it is taken almost entirely from the writings of modern authors, who have treated of the disease in hot climates.

“When, as frequently occurs in autumn and the latter end of summer, a person becomes first heated, and then exposed to cold, or which is still more frequent and influential, to cold and moisture combined, the temperature of the surface of the body is considerably cooled down, the flow of blood to, and the secretion from this surface are checked, and the consequence is that an unusual quantity of blood is determined to the interior of the body. But this blood is not determined to any other tissue than the mucous, because, as it would appear, this tissue is but a modified continuation of, and, of all others, the most closely allied, in structure, function, and sympathy, to the skin, for which the reflux blood was originally destined. Again, this blood is not determined to the mucous membranes of the mouth, nose, fauces, pharynx, lungs, or genito-urinary organs, but to those of the liver, stomach, and small and large intestines, which are obviously infinitely more exposed to, and perhaps at the time actually laboring under derangements which render them less capable of resisting, and more prone to receiving the tide of blood thus diverted from its natural direction. This is the congestive stage, and it marks the rigor, paleness, inappetency, eructation, and nausea, with which the attack generally commences. The presence of such an unusual quantity of blood in these organs, destroys the equilibrium which previously existed between their vascular and nervous systems, and eventually the latter becomes excited

proportionally with the former. This is the irritative stage, which so shortly precedes the inflammatory, and is only marked perhaps by the irregular and wandering pains complained of before those termed ‘tormina’ set in. During both these stages, there is, most likely, little or no effusion of blood, and the hepatic and intestinal secretions are arrested; but the third stage is quickly developed, and the whole of the mucous membrane of the digestive canal, from the pyloric, if not from the cardiac, orifice of the stomach to the anus, as well as that continuation of it which lines the biliary and pancreatic ducts to their minutest and most remote ramifications, are attacked with inflammation, and become highly and morbidly sensible. From this extensive surface blood is now copiously effused, and the hepatic, intestinal, and perhaps pancreatic, secretions become increased in quantity, and highly vitiated and irritating in quality. These secretions, as well as the morbid state by which they were produced, rouse the muscular parietes of the small intestines into activity, and cause them to hurry forwards their multifarious contents, namely, alimentary matter, blood, air, and vitiated hepatic and intestinal secretions, towards the large intestines; but in their passage through the small they necessarily create great tormina and suffering, for the containing parts and their contents no longer bear to each other the same inoffensive relation as in health, the former being much more sensible of irritation, and the latter much more irritating.” 157.

The contents having passed the valve of the colon, Dr. O'B. thinks that they there become very differently circumstanced, and in a manner which requires to be clearly explained. The following is the exposition given by our author, and which he considers a tolerably accurate one.

“At the time of the attack of the disease, the rectum is, as it always is, except for a few minutes before stool, firmly and imperviously contracted; but during the irritative and inflammatory stages, it becomes, according to the principle already laid down, still more powerfully contracted; and the consequence is, that with the exception of a very small quantity of flatus, blood and mucus, which occasionally escapes per anum, there is complete retention of the alvine contents. In fact, as far as retention of both solid and fluid feces, the bowels may be said to be completely constipated at the early period of the disease, as they are in enteritis, for the discharges from them are then very rarely ever seen

ged with fecal matter. Again, at no period of disease is there any evidence whatever of the ileo-cæcal valve performing its office imperfectly, if it were even true that the action of this valve may be inverted, it is certain that the steracæous vomiting; the supposed test of the occurrence, has never yet been observed in dysentery. Such being the state of the facts, it follows that the contents are admitted to pass freely, though the ileo-cæcal valve,—that their exit per anum is prevented by the rectum,—that their return into the small intestines is prevented by the ileo-cæcal valve, and, consequently, that once they have entered, they are forced to remain pent up within the cæcum and colon; and that the combined effect of the peculiar structure and actions of the valve and rectum, is such as to subject these portions of the large intestines to the operation of a principle of accumulation, which is always more or less in activity. These facts have been already noticed, and are equally applicable to various other diseases, but I have considered it necessary to repeat them here, and put them in a still more impressive shape, in order to produce as strong a conviction as possible on the subject under consideration.

Having given this explanation, I have now to revert to the early part of the inflammatory stage, in which the alimentary matter, blood, air, and vitiated secretions, have been described as being hurried on towards the ileo-cæcal valve. When all these matters enter the valve, which appears to freely admit them, they become applied to the lining membrane of the cæcum, and soon to that of the whole of the colon; and, from being free ingress, but neither regress nor regress, become pent up and accumulated within these intestines, and subject their lining membrane, which, be it recollected, is already in an inflamed state, to a high degree of both mechanical and chemical irritation, and in fact, to an irritation which increases in intensity with every accession of matter from the superior division of the canal. In this way, the irritation and distension quickly become such as to rouse the abdominal muscles to frequent and violent expulsive efforts; but these efforts almost invariably fail, at an early period of the disease, in forcing open the upper annulus or entrance of the rectum, because this part of the intestine, by being directly exposed to the action of the same cause by which the abdominal muscles are excited, is stimulated to oppose a degree of resistance proportioned to that of the force exerted by these muscles. Here, however,

it may be objected that the fact of bloody and mucous discharges being co-existent with the inflammatory stage, is evidence of the expulsive efforts making, at least, a partial impression upon the superior annulus or entrance of the rectum; but as the lining membrane of this intestine is, at the time, in an equally inflamed state, and consequently, as the blood and mucus discharged may be furnished from this, and not from a higher source, the objection almost ceases to be one. Indeed, it would be much better sustained, if it could be shown that flatus was discharged at this early period of the disease; but as far as my experience of the disease goes, and it has been ample, the discharge of flatus per anum is an occurrence which is not observed for many hours or even for some days after the appearance of mucous and bloody stools. But to proceed. The inflamed lining membrane of the cæcum and colon, in consequence of being so singularly circumstanced, necessarily advances to ulceration; and it is obvious that this membrane will become much more deeply and extensively ulcerated in those situations in which the contents have been shown to become lodged, or to meet with the greatest obstruction in passing. Accordingly, pathological anatomy shews that the cæcum, and the transverse arch and sigmoid flexure of the colon are the situations in which the most numerous and the deepest ulcers are found. But if matters were to continue thus for any length of time, it is manifest that the ulcerative process would quickly destroy the muscular coat, extend to the sub-serous and serous tissues, and cause death by enteritis. In point of fact, such a conversion is far from being an uncommon termination of dysentery. Nature, however, generally makes an effort in which she succeeds in arresting the activity of this process, and causing the disease to assume a more chronic form; and the means by which she proceeds to effect these objects appear to be of a two-fold description. In the first place, it will be shown hereafter that, as the disease advances, a recuperative power is bestowed upon the small intestines; that these intestines, together with the liver, no longer pour out secretions of the same vitiated and irritating quality, or in the same quantity; and that thus one great source of irritation and distension is removed. In the next place, the inflammatory action going on in the sigmoid flexure of the colon, soon extends itself, first, to the mucous, subsequently to the muscular structure of the upper annulus or orifice of the rectum; and, by thus

weakening the resistance previously made by this part to the expulsive efforts, enables a quantity of flatus, blood, mucus, and occasionally fluid feces, to escape from time to time, per anum. Here is a still more effectual arrangement than the former for relieving the oppressed condition, and checking the rapidity of ulceration, of the cæcum and colon. From the upper annulus of the rectum the disorganizing process soon extends along the inferior portion of this bowel; solid and fluid feces, but exceedingly rarely what are called scybala, are found more frequently, in greater quantity, and with an admixture of purulent matter in the discharges by stool; and the disease may now be said to have assumed the chronic form." 161.

This explanation being taken for the true one, and the state of the cæcum and colon being such as our author has described it, he thinks the inference is direct, and of great practical importance—"namely, that the chief curative indication should be to pass up the gum-clastic tube, and introduce it into the sigmoid flexure, in order to give exit to the accumulated and pent up contents of the cæcum and colon." Dr. O'B. is aware of the objection that lies against this measure, on account of the highly irritable, if not inflamed state of the rectum; but assures us that the pain is momentary, and the benefit great. In consequence of the prevalence of cholera, and the disappearance of dysentery, our author had been able to use the remedy in one case only of the disease, when the body of the work was printed. This case we shall give, in order that the author may have no cause of complaint against us.

"On the evening of the 11th of April last, Miss Rosetta F., an infant nine months old, was given, while teething severely, two grains of calomel, which produced, during the night, severe vomiting, purging, and, as would appear from her cries, considerable griping and pain. The following day, and while she still had more or less of purging, the nurse imprudently carried her about in the open air, and without sufficient covering. On that night she began to pass blood and mucus per anum, unmixed with a particle of fecal matter; she moaned continually, and threw up the breast-milk nearly as soon as she took it. To remove these symptoms, she was placed in a warm bath, had the abdomen staped with warm water and spirits, and was given internally mint tea and castor oil, which she likewise rejected by vomiting. Various domestic injections were also administered to her by a bag and pipe, but were

invariably returned unchanged, and without producing any feculent discharge; and it was observed that she passed no urine for twenty-four hours. In this state, but the general symptoms becoming daily more aggravated, she continued until Sunday the 15th, when the family feared she was dying, and I was requested to see her. Her countenance was then exceedingly pale, her feet and hands, although enveloped in warm flannel, were very cold, and she lay, evidently from great weakness, quite motionless in the nurse's lap, with her eyelids half closed, and seemingly regardless of the persons and objects about her. Her pulse was very quick and feeble. She was passing, every ten minutes, quantities of blood and mucus, untinged with fecal matter from her bowels, and her abdomen was hard and distended. My first care was to divide the gum by a deep crucial incision made at all those points where teeth were making their way; but perceiving that she was in no degree relieved by the operation, and seeing the imminent danger in which the infant was placed, I resolved on introducing the tube. Accordingly, no time was lost in doing so, and, although it was but a size smaller than the stomach tube, no unusual difficulty was encountered in passing it, and the infant did not cry much, or seem to feel any great pain. As soon as the instrument entered the sigmoid flexure, a burst of flatus, followed by fluid feces, blood and mucus, escaped through it, and on these ceasing to come away, an injection, composed of half pint of warm water and half an ounce of castor oil, was thrown up. The tube was then withdrawn, and immediately followed by a very considerable quantity of solid and fluid feces, mixed with blood and mucus. In less than an hour, the infant became generally warm, very lively, took the breast with avidity, and without vomiting up the milk as before; and her pulse, although still quick, became much fuller and stronger. She was now directed to have a teaspoonful of electuary of sulphur every fourth hour, to get a little weak chicken broth from time to time, and to have the belly frequently staped with an infusion of half an ounce of leaf tobacco in two or three quarts of boiling water, which was to be used as soon as it had sufficiently cooled down. During that day, she had two or three stools, from which blood and mucus gradually disappeared, and she slept naturally during the night. The following morning she was so well as to require no further treatment, and she is now a healthy, strong child." 169.

Dr. O'B. does not mean to exclude other and appropriate remedies in dysentery. He thinks, however, that it will supersede the use of many other medicinal measures, and, more especially, blood-letting. He informs us that, about nine years ago, he published a paper "on the use and advantages of tobacco in the treatment of dysentery," and he avers that subsequent experience confirmed him in its utility. By it the necessity for bleeding was obviated—and he did not lose a single case of acute dysentery, when this remedy was employed.

"I have found it a most useful adjuvant in the treatment of colic, enteritis, and other affections of the bowels; and I have often employed it with success, in cases where, from the degree of debility which existed, general bleeding, although indicated, would have proved more fatal than the disease itself. In short, time has but served to establish the practice, and confirm all the statements made in my paper on this subject." 170.

The mode of application is a quarter of a pound of tobacco infused in four or five quarts of boiling water, and used as a fomentation, till prostration of strength ensue. Mean time a dose of castor oil is to be administered and repeated till the bowels are cleared. Here our author puts forth a pretty severe tirade against a reviewer in this Journal, who ventured to moderate Dr. O'Beirne's sanguine anticipations from having had a single case of tetanus terminate favorably after the use of tobacco. One of the passages so violently assailed is this:—"A single case can do no more than authorize further trials, without exciting any thing like sanguine hopes, or forming any basis for general conclusions."—*Med. Chir. Review*; 1823. It would probably be a good maxim for our author himself to observe, even on the present occasion. But, contrary to the usual disposition of critics, we are disarmed by censure, not by flattery—therefore we shall pass by Dr. O'Beirne's criticisms on the reviewer in this Journal.

The subject of tympanitis next engages our author's attention, and the tube is recommended as the remedy. Tetanus is to be the subject of a forthcoming volume, and therefore is passed over in this, with the single observation that, as obstinate constipation is a never-failing attendant on tetanus, "the introduction of the tube never fails on overcoming it."

DELIRIUM TREMENS.

The application of the mechanical remedy now under consideration is made with a view very dif-

ferent from that of removing constipation. This view will be developed by the following extract.

"In almost every case of delirium tremens that I have seen, careful inquiry into its previous history has made me acquainted with a circumstance which must be familiar to every experienced practitioner,—namely, that for some time before the attack of the disease, the patient has scarcely eaten any breakfast, and very little at dinner; and has been gradually emaciating, and becoming weak and languid. This being the case, it is but reasonable to infer that the sensorial exaltation which ensues, arises as much from deficient supply of food, and, consequently, of blood to the system, as from the excitement caused by the abuse of spirituous liquors; and that one of the curative indications, and a very important one, should consist in stimulating the system naturally, as by proper nourishment, as well as by such artificial means as opium, camphor, wine, or spirituous liquors of any kind. In point of fact, remedies of the latter description must be but temporary in their effects, and act under every disadvantage, so long as the vascular system continues to be weakened by a defective supply of blood, and no longer in equilibrio with the nervous system, or capable of supplying this system with the necessary quantity or perhaps quality of blood. Accordingly, although they succeed in persons who have not had many attacks of the disease, and possess sufficient recuperative powers, we know that they too often fail in cases of an opposite description. It may be objected, however, that the patient's stomach is too irritable to bear food, or that he has an unconquerable disgust to it, and, in short, that he either cannot, or will not take any nourishment, or will only take it in such small quantities as would be quite insufficient for the purpose. This objection is supported by experience and reason. But what objection can be urged against the plan of nourishing the patient per anum?" 194.

Two cases are related, in which the introduction of strong animal broths appears to have been very beneficial. We need hardly remark, however, that the common syringe would have answered the purpose just as well as the elastic tube—at least, we never find any difficulty in the introduction of broths or other enemata, where they are judged necessary.

We have now given an extended and faithful analysis of Dr. O'Beirne's work—with the exception of the controversy respecting Sir Charles Bell's views of the facial nerves, and we have very

few comments to make. We think it will be manifest to every one, that the new remedy for "constipation" is quite inapplicable to the general run of that complaint, under its common acceptance. Constipation of the bowels does not surely require the difficult operation of passing a tube into the sigmoid flexure of the colon every time that the bowels require evacuation; nor would this prove a remedy for constipation after all. We think it unquestionable that the tube is only a remedy for dangerous and obstinate effects of constipation, or other mechanical obstruction to the intestinal evacuations. In such cases, and in such cases *only*, can it be applicable, and then *only* in the hands of an expert surgeon. We confidently refer to the cases introduced, and Dr. O'Beirne's own description of the operation, for proof of the justness of these observations. Dr. O'B. ought not to be mortified if his favorite remedy be thus limited in the range of its application; for it will still be a very valuable addition to the list of our remedial agents, in difficult emergencies. We have little doubt that the author will be greatly offended with us for this "discouragement," as he will call it; but should the author and ourselves live for ten years longer, we hereby invite him to publicly impugn our prognostications, should they turn out false. In respect to his "new views of defecation," we fairly give him considerable merit for originality. We are not, indeed, entire converts to all his views; but we are free to confess that his work will tend to remove some erroneous views entertained by the great body of the profession respecting the function of the rectum and the sigmoid flexure of the colon. However, we have so fully delineated the contents of the book, that no misconception can result, even where the original, (which we strongly recommend) does not come under the cognizance of the reader.

In the *Lancet* of the 17th August, the following case of aneurism is communicated.

ST. BARTHOLOMEW'S HOSPITAL.

SINGULAR CASE.—ANEURISM OF THE ARCH OF THE AORTA, COMMUNICATING WITH THE VENA CAVA SUPERIOR.

Wm. Brown, a coachman, aged 41, admitted into John's Ward July 8th, presented the following appearances:—Countenance œdematous and purple; eyelids tumid, with slight serous effusion under the conjunctiva; tongue clean and moist; pulse 100; œdema of the right upper extremity,

and of the trunk, as far as the base of the chest, principally on the right side; clusters of minute veins, almost viracose, are scattered over the chest; and on the back, in addition, are found several large cutaneous veins. Has no pain in the head, but towards night feels dizzy and confused; has a cough, with tough expectoration, dyspnœa, and palpitation, particularly on motion, although not occurring in paroxysms; sensation of a weight on the shoulders; some fulness is perceptible on the right hypogastrium, which is painful on pressure; appetite good; slight thirst; bowels open from medicine; urine scanty, acid, but not albuminous. As long as he can remember he has had cough, with dyspnœa and palpitation; he has lived intemperately and been much exposed to wet and cold; has felt less vigorous during the past spring. Three weeks ago he first observed his face purple and swollen; for a few days previous he had pains in the neck and shoulders, which ceased on the appearance of the swelling; the integuments of the chest then became œdematous, and a week after the arm was similarly affected; leeches were applied to the axilla, and he has taken elaterium and diuretics with relief. Has become feeble, and his legs have wasted since his illness.

Auscultation.—The heart is heard over a greater extent than natural above the right mamma, without excess of impulse; there is a distinct bruissement opposite the origin of the aorta, which is still more evident at the top of the sternum, and beneath the right clavicle; the sound is like the vibration of a string, and is heard, though in a less degree, over the right carotid; some crepitation on both sides of the chest behind, heard most distinctly at the upper part; slight rhonchus. One scruple of *nitrate of potass* in *peppermint water*; *cupping* beneath the shoulder blade to eight ounces.

11. Feels relieved from the cupping; has less weight and stiffness about the shoulders; omit the nitrate of potass. The *compound elaterium pill* is ordered.

13. Was purged by the pills and vomited; has rather less swelling about the neck.

Auscultation—Some perceptible impulse to the touch between the right clavicle and mamma; chest dull on percussion beneath the right, and sonorous beneath the left, clavicles. Saline effervescing draughts.

17. Had great difficulty of breathing last night, was confused in his answers; the face and neck, and particularly the eyelids, are more swollen; cough troublesome, with want of power to ex-

pectorate; pulse 100, and rather hard. Twelve leeches beneath the right clavicle.

19. The breathing was much relieved by the leeches, but was again difficult towards night; œdema has extended to the scrotum and ancles. Twelve leeches.

22. Breathing again oppressed at night, with some delirium; expectoration tinged with blood. Repeat the leeches.

25. Was again relieved by the leeches. Complaints of stupor and want of consciousness, with tightness around the throat, and wheezing respiration.

Cupping to six ounces, behind the ears; *peppermint water*, with one dram of *spirit of juniper*, and half a dram of *tincture of scilla* three times a day.

29. Œdema extended to the left arm; no other change.

Omit the peppermint water. Ordered *compound decoction of juniper*.

August 1. Countenance swollen, from œdema, to an intense degree; eyelids puffed and semi-transparent; the margin of the temporal fossa is marked by a ridge of elevated skin, breathing much oppressed. *Cupping* beneath the clavicle to eight ounces.

4. During the last three days the delirium has been almost constant; had to-day a severe fit of dyspnœa, followed by profuse perspiration; marked subsidence of the tumefaction over the temples and of the eyelids. Gradually sunk, and died in the evening soon after eight o'clock.

Autopsy twelve hours after death.

The pleura was adherent to the ribs in both sides. Corresponding to the three upper ribs, on the right side, was a tumour as large as the fist, connected with the lungs on either side, and with the vena cava, which was behind it, on the right. This was an aneurism of the aorta, commencing gradually with the pericardium, and terminating a little before the origin of the innominate; it contained coagulated blood, without any separation of fibrin or deposition of layers. The aneurismal sac was divided into two parts, by a ridge, which gave the artery the appearance of terminating at that line: the internal lining, however, seemed to be continuous over it, yet, from the friable state in which it was, it could not be raised or reflected. The right side of the artery was principally affected. The vena cava superior contained a coagulum of blood; and about two inches above its entrance into the auricle, was found a round opening, communicating with the

aneurismal sac, rather less in size than a sixpence; the edges of this aperture were smooth; the sac was thin at this part, and a little below the opening it was semi-transparent. The heart was large, from dilatation of the ventricles, with no increase in the thickness of its walls; the valves were in their natural state. The lung crepitated on pressure in every part; the pleura on the lower half of the right side, and that corresponding to the diaphragm, was thickened to the extent of a quarter of an inch, and was composed of five layers indicated by white striæ. The liver was firm and rather small; the kidneys and other viscera were healthy.

This examination excited great interest amongst the professors and other medical gentlemen who witnessed it. Although aneurisms of the arch of the aorta are known to terminate by bursting into the cavity of the chest, or into the pericardium, and sometimes by effusion into the trachea or bronchiæ, or even into the œsophagus; and there have been instances where the aneurismal tumour, having become attached to the pulmonary artery or the right auricle, death has ensued from a communication between them. Yet the appearances in this case presented a novelty in aneurismal varices, which was acknowledged by Mr. Langstaff and several other morbid anatomists, to be heretofore unprecedented in their pathological investigations.

Dislocation of the Humerus backwards on the Dorsum of the Scapula.

Dislocation of the humerus backwards is so rare that Dessault never met with it; and his editor Bichat declared that no instance of its occurrence was recorded implying a doubt of the fact itself. In this respect, Bichat was wrong. Amongst others, Kirkland saw and reduced two cases of it. Boyer was formerly of the same opinion as Bichat, having remarked that "there is one species of dislocation of the humerus, with which, though described, and the possibility made manifest, we are not acquainted with a single instance—it is the dislocation outward or backward." But further observation has shown this experienced practitioner one example of this dislocation; and Sir A. Cooper has met with it only twice in the course of thirty-eight years practice. An instance of this dislocation lately occurred at the Middlesex Hospital, in the person of Mary H—æ. forty-nine, of spare make, who presented herself on the afternoon of June 4th, shortly after an accident which has disabled her

right arm, Mr. Gill, the house surgeon, having recognized the nature of the accident, called the surgeon of the week, Mr. Arnott, who happened to be in the hospital at the time, that he might have an opportunity of witnessing the unusual occurrence. The nature of the injury was evident to the eye without the aid of sense of touch. The projecting head of the humerus was seen on the dorsum of the scapula immediately below its spine, with an excavation in front, under the annomion in the natural situation of the joint. The arm hung by the side precisely as the left or sound one, and was not directed forwards and outwards, as represented by some writers in describing the symptoms of this dislocation. The head of the bone could be made, and was seen to rotate in its new situation on the back of the scapula. The accident occurred in the following way:—The patient was reaching down a box from the top of another which stood on a bedstead. In doing this, her arm was extended upwards and forwards, the hand being placed so as to receive the box, when this suddenly slipped off the other, and she felt her right arm give way and fall powerless by her side, the box at the same instant coming to the ground. The reduction was thus effected: The patient was seated on the ground with the sound side close to a wall, in which was a staple on a level with the shoulder, to which the apparatus for fixing the trunk and scapula was attached. Extension was made by two men by means of a cloth attached to the humerus; the direction of which, was outwards, forwards, and a little upwards, the surgeon standing behind the patient and retaining the scapula from yielding forwards. After hanging on for some time, and then by a more forcible extension, the head of the bone slipped into its socket with a snap. An effort at reduction by one man, on the towel, had previously failed.

PREPARATIONS OF ARSENIC,

Employed by M. Dupuytren in the treatment of Malignant Ulcers.

The arsenical preparations in common use act as escharotics, and often leave behind them deformed cicatrices. M. Dupuytren believes that he is able to obviate these inconveniences by a combination of calomel and arsenic in proportions different from those usually adopted. His formula is the following:

℞ White arsenic or arsenious acid, 4 parts,
Calomel, in powder, 96 do. M.

The arsenic may occasionally be increased to 5 or 6 parts in the 100. The ulcerations are well cleansed with poultices in the first place, then with a little piece of charpie dipped in the powder, a layer is put on not exceeding a millimetre in thickness. The whole of the ulcer is covered if it be but moderately large; but if considerable, it must be only half a quarter covered according to its extent, taking care to apply the remedy on successive occasions to different parts of the sore. M. Dupuytren also employs a paste composed of a solution of arsenious acid in distilled water, with calomel added, and sufficient of powdered gum to give it the consistence of a paste. The proportion of arsenic in the paste is greater than that in the powder, being 6, 8, 10, or 12 hundredths of the acid, to 94, 92, 90, or 88 hundredths of the calomel respectively. It is applied with the same precautions as the powder. The application of both the paste and the powder produces, in the first instance, pain and inflammation; but these effects subside, and the remedy may be repeated eight or ten days after. Five or six applications generally cure an ulcerated surface. No eschar is formed during the process. The surface is merely modified without being cauterized; and in this consists the superiority of this method of treatment over that of Frère Côme and Rosselot.—*Gaz. des Hôp.*

Rupture of the Aorta into the Pericardium.

A man aged 38, by occupation a sawyer, had complained of occasional pain under the sternum during the last three weeks of his life; but the uneasiness was not sufficient to prevent him from following his work. After eating a hearty dinner, and drinking freely of beer, he was seized with slight convulsions; which, in a few minutes, terminated in a fatal syncope. We examined the body twenty hours after death. The cellular membrane was loaded with fat, and the muscular parietes of the thorax and abdomen were finely developed, owing doubtless to the nature of his employ. On raising the sternum the lungs presented a very healthy appearance. There were some few adhesions between the pleura, which, from their firmness, appeared to be not of recent date. The pericardium presented a distended appearance; and, on puncturing it, a quantity of serum flowed under, which was a layer of coagulum completely covering the heart. The fluid, altogether, would perhaps have weighed twelve ounces. This and the coagulum being removed, the pericardium, as well as the

substance of the heart, were found quite free from disease—so were also the auriculo-ventricular and semilunar valves, where the ascending joins the transverse part of the arch of the aorta. There was a small irregular opening looking towards the vertebral column about the size of a split pea through which the blood had escaped. The coats of the vessel were very thin just in the vicinity of the opening, and appeared to have been eroded by a species of ulceration. In the neighborhood of the opening the arterial tunics were fully three or four times their natural thickness alternating with points of extreme tenuity. This diseased state of the vessel extended through a space about the size of half a crown. The aorta was certainly dilated at the diseased portion; but no regular sac was formed nor any thing like a laminated coagulum. Was the disease one of acute inflammation ending in ulceration? That it was an acute disease of the artery, I think must be allowed since the man had not complained more than three weeks, nor did we see the usual indications of long continued disease in the morbid alterations of the surrounding parts. Not having seen the man during life, I am unable to give a perfect history of the case, otherwise it would have been an interesting subject of inquiry how far his occupation tended to the production of the disease. This is certain, that he worked on the day previous to his death, and only complained of occasional cutting pain under the sternum. The viscera of the abdomen were perfectly healthy; and with the exception of the cardiac glands which were enlarged and contained, melanotic matter, no other deviation from a healthy structure could be detected.

A live mouse swallowed.

The following case is related by Dr. Heyman, of Oldendorf. It occurred not long since in the village of Lashorst, in Westphalia. A child about three years old was put to bed having not yet quite finished its evening meal. The mice, with which the house swarmed, were presently attracted by some crumbs of bread which were about the child's mouth. One of the hungry marauders even ventured within the lips, and in the child's alarm on a sudden effort to awake, was swallowed. There was now of course much screaming, and the extraordinary story was told by the child that a mouse had gone into its mouth. The region of the stomach was pointed out as the seat of pain which was confirmed by the writhing and the spitting of blood which present-

ly ensued. The pains lasted in all their violence for two hours, then came at last a repose, interrupted, however, now and then by further writhings and spitting of blood. Next morning a large quantity of milk was given to the child. All this time it was greatly doubted whether any such thing as a mouse had really been swallowed; but in forty-eight hours a mouse of considerable size was found to have passed by the bowels. It was greatly mashed, and had the hair stripped off on several parts of the skin. It was enveloped in mucus and blood. The digestive organs suffered very much from this accident, so much so, indeed, that the child was for some time after seriously ill, though at present the recovery is perfect.—*Berliner Medicinische Zeitung.*

The physiological fact of the immense power possessed by muscles, is well illustrated by the following case, which was lately treated in the London Hospital. Similar occurrences are not unfrequent.

Fracture of the Patella by the action of the Extensor muscles.

William Able, aged 30, laborer, was admitted July 28th, into Mellish's ward, under the care of Sir William Blizard, with transverse fracture of the patella, which could be distinctly traced to the action of the muscles, as the patient did not fall in a manner to injure the knee. The accident occurred thus: the man was walking on the edge of the pavement in the city, and slipped off. Endeavoring to save himself, his whole weight was thrown on his right leg. "He heard something snap," at the same time falling on his back. The limb was placed on an inclined plane, the two pieces of the patella being in accurate contact. To be kept constantly wet with the sour wash. No bandage.

August 5. Going on remarkably well; does not complain of the least pain; bowels regular.

It has been decided by the Senatus Academicus, that the examinations in the University of Edinburgh for the medical degree, shall henceforth be conducted in the English instead of the Latin language.

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OF

MEDICAL AND CHIRURGICAL SCIENCE;

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

Vol. I.

WASHINGTON, NOVEMBER 23, 1833.

No. 7.

LECTURES ON AMPUTATIONS.

DELIVERED BY M. LE BARON DUPUYTREN,

During the present Session, 1833.

The diseases which require amputation of the limbs are numerous; one class referring to the bones or their articulations, the other relating more especially to the soft parts. We may lay it down as a general rule, that whenever an injury is such that either primarily or secondarily the affected member must be lost, or the life of the individual imminently threatened, it is the duty of the surgeon to have recourse to amputation. But is it easy to apply this general rule to each individual case in practice? By no means, especially when the question concerns those cases where we have to decide whether immediate amputation should be employed, or whether there remain any hope of finding in the resources of art, or nature, the means of rescuing the unfortunate patient from the danger consequent on his wound, without exposing him to those necessarily attending the operation. You may have observed in the hospital more than one example of extensive and severe organic lesion, which seemed to demand a speedy operation, yet we have been sufficiently fortunate to obtain a perfect cure in these cases without employing the knife. However, you also may have seen other cases, which, though not in themselves so dangerous, have caused me to regret deeply this line of conduct, from the mortal accidents to which it has given rise.

Two cases still in the hospital are of a nature to prove that we often gain more than we lose by temporizing. The first was that of a man whose hand was smashed by a kick from a horse;

instead of operating at once, we were content with removing such fragments as could not have united. No accident of any kind supervened, and the patient was cured, preserving every part of his hand, which was not altogether disfigured by the injury.

The other patient had all the anterior part of the foot crushed by a machine; the great-toe was literally broken to atoms; the first and second metatarsal bones also reduced to fragments; the other two were wounded in various places and denuded of skin; the integuments of the sole of the foot were torn away, and the wound had become gangrenous. In this case the question presented itself, to determine whether there was an urgent necessity to perform immediate amputation, and if so, whether it should be practised at the articulations of the metatarsus with the tarsus, or according to Chapart's method. We have long been convinced by experience of the danger attending Chapart's method, and therefore never employ it, except when compelled by the nature of the accident; on the other hand we did not think it judicious to amputate immediately at the metatarso-tarsal articulations; but we bled the patient, applied leeches, emollient cataplasms, &c., and confined him to strict diet. The pain, tumefaction, and inflammation, have considerably diminished, the progress of the gangrene is arrested, and the wound has assumed a healthy appearance. This is the fourteenth or fifteenth day of treatment, and no accident has appeared. In this case it appears that we were fortunate in putting off the operation, and the patient has lost only one toe instead of the whole foot. We must, however, confess, that we were considerably aided in this case by the youth and

good constitution of the patient. Occasionally, therefore, the temerity of the surgeon is justified by his success in the treatment of injuries produced by ordinary causes, but it is not so with regard to gun-shot wounds.

We shall not now dilate on a subject already treated of in another lecture, (on gun-shot wounds,) but will merely repeat the conclusions to which we have come. I cannot think we have been too ready to believe the older military surgeons for amputating at once; and I do not fear to lay it down as a principle, that in cases of compound fracture produced by gun-shot, if we defer the operation, we lose more lives than we save limbs.

The days of June 1832 afforded us numerous opportunities of testing this principle. We had in the Salle Sainte-Marthe, a case of fracture of the olecranon, occasioned by a bullet, which also traversed the articulation and fractured the contiguous portions of the humerus and ulna. As the extent of the wound was not great, we determined on attempting to save the limb. For the first few days things went on favorably, but on the 9th the character of the wound began to change, and assume that of hospital gangrene, being ragged and greyish-brown; the limb also being convulsed to such a degree as to displace the fractured extremities of the bones. Three days later there appeared diarrhœa with low fever, which determined us to amputate on the 20th day, though with little hope of success, in fact the man died the same day. After death we found a phlebitis of the brachial vein, and purulent collections in both lungs.

Another case, very analagous, presented itself in the person of a man who was wounded in the arm by a ball, which traversed the humerus and produced a comminuted fracture, driving numerous splinters amongst the muscles. We considered immediate amputation to be necessary but the patient would not consent. For the first ten days his state was most favorable, but on the tenth the fractured limb was seized with spasms; on the twelfth, deglutition became difficult, and amputation again proposed, was rejected by the patient, who died in a state of tetanus on the fourteenth. This fact, as well as the former, illustrates clearly the uncertainty of the prognosis in cases of this kind, and the perplexity in which the surgeon is involved. In fact, for fourteen days the second patient was in so favorable a state, that we began to hesitate about the correctness of the first opinion in favor of amputation, which was recommended more to avoid the

absorption of pus and danger of visceral inflammation than the tetanus.

Let us cite another example.—A young porter, sixteen years of age, fell from a great height on the pavement, and fractured the bones which compose the ankle joint; in addition to this he had a compound fracture of the leg and torn muscles, and cellular tissue came away in fragments from the wound. Such an accident seemed to require amputation, but dreading the effects of purulent absorption, from which so many of our wounded patients at the time suffered, we preferred trusting the case to the efforts of nature. The fractures were reduced and the proper apparatus put on. Antiphlogistic treatment was actively employed, and after a considerable time the patient was discharged perfectly cured.

After the numerous examples which we had of accidents similar to this terminating fatally, whether they were simplified or not by amputation, we have here a case which seems to contradict the principle deduced from them. How then are we to explain such different results? Without doubt they are to be referred to differences of organization, when causes are unknown to us, which we cannot discover beforehand, and the existence of which we presume from the effects produced. It may be remarked, that this patient was very young, and that in doubtful cases the age of the individual must be regarded as one of the most important circumstances either to hasten or defer the operations.

This fact also points to another contra-indication to amputation derived from the reigning constitution. It is a circumstance which has not, we believe, been hitherto examined. Should we, in fact, have recourse to the operation, though rationally indicated, when numerous cases which have preceded lead us to conclude, almost to a certainty, a fatal result? Is it not better to let the patient die than to kill him, and to defer the operation, however pressing its necessity may appear? The fatal influence of the atmosphere, on constitutions is often seen in our great hospitals. At Val de Grace, during a period of fifteen days, every one who was bled was seized with phlebitis, however carefully performed, and at the Hôtel Dieu the number of consecutive cases of phlebitis has, at certain periods, been so great, that we dared not for a long time prescribe venesection.

So in general the necessity of primary amputation results from the severity of the injury, especially in gun-shot wounds; we may say, that this very severity is a contra-indication to its

employment, two cases of complicated fracture. which were received into the Hôtel, one shortly after the other, gave occasion to this remark.

A young man of seventeen years of age fell backwards from a sixth story on the ground, on which he alighted with his feet. The accidents resulting from such a fall were numerous; the os calcis and astragalus on the left side were fractured; the extremity of the tibia was fractured, and the bone broken again at its upper third.

The right foot seemed less contused, but the os calcis was broken; there existed a compound fracture of the tibia. The extreme weakness of the patient did not permit us to apply any treatment the first day; he was bled on the second, but died soon after. This was assuredly a very severe accident, yet we have examples of persons often escaping worse injuries. If the lesion described existed on one side only, primary amputation was indispensable; but it may be asked why we did nothing in the present instance. Because the state of the patient was so dangerous and complicated, that it could not be rendered more simple by an amputation.

In the case just cited the disorders produced by a fall on the feet from great height were great, but I have noticed some in which the accidents were much more severe; in one the head of the femur was driven through the cotyloid cavity into the pelvis; in another the whole shock was transferred to the spine and four of the vertebræ, so completely crushed that the spinal column was shortened by this immense interval.

Luxations accompanied with extensive laceration of the soft parts, and particularly of the vessels are sometimes attended with such dangerous consequences, that they are by most surgeons enumerated amongst the cases requiring at all hazard amputation. The violent pain produced by the subsequent inflammation and the tendency to gangrene seems to justify the established rule; however, it is subject to numerous exceptions; if the destruction of parts be not great, if the bones are not broken into fragments; if the principal vessels and nerves remain in tact; if, in fine, gangrene does not seem inevitable, we shall restore the parts to their natural position and employ every means to combat the inflammation or prevent accidents. But if the tendons, ligaments and capsules are extensively lacerated, if the bones are comminuted, while the soft parts are violently contused or torn, we should not hesitate to practise at once amputation. It is at the wrist, and particularly at the ankle-joint, that we most often see luxations, accompanied

with the dreadful accidents which I have just noticed.

The uncertainties which surround primary amputations do not in general occur either so numerously or with such importance in cases where amputation is rendered necessary by a pre-existing disease. Amongst the diseases requiring amputation, some affect the articulations, some the whole length of the limb, some are situated in the bone, others in the soft parts.

1st. White swellings of the joints frequently render amputation of the limb necessary. Let us first examine some parts before we attempt to draw any general conclusions.

A child of from seven to eight years, was seized with an inflammatory engorgement of the elbow after a fall on this part. The tumefaction gradually increased and the bones of the joint became affected; abscesses formed at different points, and opened externally through fistulous tracts. Moxas, cauteries, were applied to the neighborhood in vain, the disease increased, and the joint became extremely moveable transversely from destruction of its ligaments. Under the circumstances I considered the operation indispensable; it was extremely simple, and the child soon recovered. In another case of a similar nature, the cure was effected by means of ankylosis. In this I had not recourse to amputation, because I found that certain therapeutic means had an effect on the disease, and the general state of health gave great hopes of a recovery.

2nd. A violent inflammation of an articulation, or abscesses produced by chronic inflammation, require occasionally the amputation of the limb. The following is a remarkable case in which arose the double question, if we should amputate, or if amputation should be preferred to resection of the joint.

A young man, 20 years of age, having syphilis, was seized, after three months of active treatment of the disease, with dull pains in the right elbow-joint. An enormous swelling succeeded without redness of skin, and he soon lost all power of movement. After some time the skin ulcerated, and a fistulous communication formed with the joint. In this state he entered the hospital, antiphlogistic treatment was first tried, then a second antisiphilitic, but the disease increased, and pain became intolerable. An operation was resolved on; but then came the question, should we amputate or cut out the joint? The nature of the affection was uncertain, and the skin considerably altered above and below the elbow, hence it was decided to amputate. The operation was fol-

owed by a successful issue. The joint was examined, and we found that the ligament, the synovial membranes, and the spongy portions of the bones, were all destroyed.

3rd. Surgeons also enumerate amongst the indications which require amputation, an ancient caries furnishing an abundant suppuration or necrosis of old standing, if it gives rise to an excessive secretion of pus. Caries of articular surfaces often requires only the simple resection, of the bones. As to necrosis, it is only under particular circumstances, or when, for example, it affects the whole length of a bone, that it can become a cause for operating.

4th. Gangrene or sphacelus forms one of the best established indications for amputation; but before we decide it is well, indeed absolutely necessary, to determine the cause and nature of the gangrene. By a just appreciation of the etiology of the disease we shall be able to resolve the question so often debated, viz., whether or not we ought to wait until the progress of the gangrene is arrested before we amputate. Thus when a wound of any kind is the cause of this accident, when it depends on the extent of some local disorder or the rupture of an artery, or the division of the principal veins and nerves of a limb; when, in fine, the mortification does not seem to arise from some general disturbance, some internal and concealed cause, without doubt amputation should be practised without delay. But if, on the contrary, as often happens the gangrene depends on the obliteration of the chief vessel of a limb, arising either from ossific deposit, or mechanical obstruction, amputation will not serve to bound the disease or moderate its extent.

We occasionally see a fractured limb seized with gangrene, occasioned by the pressure of a tight bandage, which has not been removed for several days. Here the disease is perfectly local, the cause known, and amputation is indispensable, when the usual means have been unavailingly employed. Numerous facts of the nature have occurred in the hospital, amongst which I may mention the case of a man who came in October 1832. This man had nothing but a simple fracture of the ulna; a bandage, too tightly applied, was allowed to remain three or four days without being changed. Gangrene seized the fingers, hand, and arm, which was cold, purple, and covered with phlyctenæ. The most active treatment failing, we were obliged without delay to have recourse to the operation, as the mortification was on the point of seizing on the arti-

culatation, and the patient in an alarming state of stupor and depression. The arm was removed at the articulation by a method which I shall presently describe, and the termination was favorable.

5th. *Spina ventosa*, osteo-sarcomatous and fungous tumours situate in the periostium, cancers, fungus hæmatodes, and hydatid cysts, developed either in the centre of a bone or in an articulation, very frequently are causes requiring amputation; cancer, when it is large and fixed, involving muscles, vessels, and nerves, and more especially bone; fungus hæmatodes, when it is impossible to extirpate the whole portion of the member; osteo-sarcoma, when it has attacked any part of the structure of a long bone, or if, having seized on the articular extremity, it produces an abundant suppuration, a great disorder of the constitution. As to hydatid cysts, the operation of opening them is often attended with imminent danger—death has sometimes been the consequence, and when even the patient survives, his recovery is only attained at the expense of violent inflammatory accidents, which in the end, may require amputation.

6th. Aneurism is occasionally complicated with such disorders, that the usual means fail, and amputation becomes necessary. This extreme measure is indicated when the surrounding parts are excessively altered, when the artery is externally ossified, when secondary hemorrhage comes on, &c.

7th. Is amputation efficacious against traumatic tetanus? I have already expressed my opinion on the subject when speaking of gun-shot wounds, and have demonstrated how erroneous were the opinions adopted by many celebrated men, and how vain were the hopes founded on this means. The same remark applies to bites of enraged animals. Not long ago, a surgeon at London amputated the arm of an individual who was bit in the hand, but who died nevertheless, of hydrophobia. Excision is of great utility under certain circumstances, but it is a mere waste of time to have recourse to amputation when once the virus has been absorbed.

Such is an enumeration of the greater number of diseases which require amputation; but the surgeon has another duty to perform besides deciding that the operation is indicated by the nature of the injury; he must also examine, if there do not exist other lesions which contra-indicate which may defeat the object for which we propose to employ it, or even hasten a fatal termination. He should endeavour to ascertain if t

disease be local, to assure himself that it does not extend beyond the reach of his knife, that it has not produced, sympathetically, any profound visceral alteration, that it does not coexist with some other organic disease. In cancerous affections, we all know how readily the glandular system takes on affections analagous to those which exist in the part originally diseased; here it is the surgeon's duty to endeavour to ascertain beforehand, whether the disease has extended to the other ganglia, as he may have reason to suspect. There are patients, again, so reduced by a long suppuration, by hectic fever, diarrhœa, &c., that amputation cannot be practised—at all events, before we improve the condition and general health of the individual, by checking the diarrhœa, calming the fever, and supporting his strength. We frequently notice chronic catarrhs and pneumonias in persons affected with diseases requiring amputation; here we must, if possible, effect the cure of the cough, &c., before we operate, or avoid amputating if this be impossible.

The same line of conduct is necessary, if a disease of this kind, or a pleurisy, shows itself during the treatment of the external injury, as we often have occasion to observe in the hospitals. Nothing is more common than the coincidence of pulmonary tubercles with some accident which imperiously requires amputation. This affection, often latent, is difficult to discover usually manifests itself after the operation by formidable symptoms, which soon terminate the patient's life.

Finally, amputation is sometimes contra-indicated by the extent of the disease, as is the case with two unfortunate young persons now in the hospital affected with an enormous osteo-sarcoma of the shoulder. As we have mentioned this disease, I may observe that amongst all the means employed to calm the cruel pain which accompanies cancerous and osteo-sarcomatous tumours, I have for a long time remarked that the *extract of aconitum*, exercises an influence altogether particular and worthy of attention. I have given it in the dose of from one to one grain and a half to the two patients just mentioned, and the effect on the nature and intensity of the pain was like a charm; I have since united it with the gummy extract of opium and the pains have nearly totally disappeared.

The necessity of amputating being once agreed upon, authors have proceeded to consider the question, "At what period of the disease is it most proper to proceed to the operation?" I must confess that I do not conceive the question

requires a great deal of deliberation; its solution is necessarily united to the nature of the indications; if we have but a hope of preserving the same time life and limb, we should not de to operate; if some hope remain, it is a proof that the necessity of amputation is not yet well proved. In a word, we may lay down upon this part of the subject the following principles:—

1. When a severe severe injury, as for example, the crushing of a limb by a heavy body, a gunshot, requires an operation, the danger arising from the accident which may supervene, indicates not only the necessity, but also the necessity of performing it as quickly as possible. The experience of latter years has too well proved to us how little attention should be paid to the opinion of those who say that, in these sort of cases it is better to wait for the first symptoms of reaction, than to operate under the influence of the disturbance produced by the external violence.

2. Though the suppuration be extremely abundant, as long as it does not exercise any marked influence on the health of the individual, amputation is not required; but the moment his strength begins to give way, the fever to increase, &c., then the indication to operate becomes clear.

3. In the case of gangrene, we should, as we have before remarked, consider carefully whether the disease depends on general or local causes, as the propriety and time for amputation depend essentially on these considerations.

4. In the disease cancer, fungus hæmatodes &c., the time proper for the removal of the limb will be, when the disease shall be positively recognised, and declared incurable by every other means.

5. Finally, whenever there exists any complication, whether external or internal, it is clear the operation should be deferred until the complications are removed.

These general remarks will give you some idea of the preparatory treatment necessary, before we have recourse to amputation. In one case, absolute diet, in another gentle nourishment, tonics; if the patient be constipated, we give some laxatives; is he agitated from want of sleep, we take care to procure repose for some days by the usual means, and to calm local pain, &c., by narcotics or soothing applications.

When the subject is scrofulous unhealthy, when the operation is required for some longstanding disease, accompanied with abundant suppuration, I have been in the habit of applying, some days before, an artificial drain, as a cau

ter, &c., in some distant part, in order to avoid the accidents which may arise from the sudden suppression of the discharge. This line of treatment I have been in the constant habit of pursuing.

You may particularly remember a child of seven years old, afflicted with a white swelling of the elbow, and a woman of sixty whose left arm was affected with a cancerous tumour; in both cases, derivative measures were employed with much benefit.

The effect of moral causes is not to be neglected in this history. Some patients are struck with horror at the idea of the operation; others, alarmed of their weakness, make violent efforts to overcome it, and present themselves to the surgeon like victims, fully assured that the operation must be fatal. There are few moral dispositions more unfavorable than this latter, and while it exists in a strong degree, we ought to avoid operating. I could cite you numerous examples of patients presenting themselves in this mood, and, in fact, dying very soon after the operation. There is no doubt but that the imagination exercises a great influence on the success of operations, and that a great part of their danger may be attributed to this propensity of man, to look into the future. Hence amputations succeed much more frequently in children who are not generally disturbed by this moral agitation. We ought, in general, to distrust the force of resistance in those who have consented to the operation after a great deal of trouble, and have suddenly assumed the appearance of a fixed determination and courage. In most cases these persons are worn out with the efforts which they make during the operation to sustain their fortitude, and fall into a state of collapse from which they cannot be roused. In this respect the sensibility resembles the blood; the source of the one may be exhausted by pain and moral affections, the other by considerable losses, and the exhaustion of these efforts. This moral agitation should always be taken into account when we deliberate on the propriety or impropriety of operating.

Before we proceed to describe the different methods of operating which we employ for the removal of the different members, it may be useful to enumerate the different instruments and apparatus necessary for the operation, the ligature of vessels, and the dressing.

The instruments necessary for even the most complicated amputation, are—1st, a tourniquet; 2nd, two straight knives with single or double

blades; 3rd, two bistouries, one straight, the other curved; 4th, retractors; 5th, amputating saws. The apparatus for dressing, and the ligature of vessels is numerous. We require, 1st, a dissecting forceps; 2nd, a tenaculum and needles armed with strong thread; 3rd, ligatures of various sizes; 4th, charpie prepared in layers and in pads; 5th, various compresses; 6th, bandages; 7th, sponges, warm water, &c. All these should be prepared and arranged in order, that they may be easily found when necessary.

Various Methods.—In an early period of surgery amputation was performed, by cutting flesh and bone in one line, and the hemorrhage was arrested by the actual cautery. Paré commenced the improvement by introducing the ligature, but even as late as the middle of the last century, surgeons still continued to cut the muscles and bone at the same level. Struck with the inconveniences which evidently arose from this method, the most celebrated practitioners endeavored to improve the operation to a further degree, and hence arose the methods known at the present day, under the names of *circular flap*, and *oval or oblique* operations. Petit adopted, with little modification, the method of Cheselden. He first divided, by a circular cut, the skin and subcutaneous tissue then dissected these parts upwards for about two inches, and divided the muscles down to the bone, which he sawed through on the same level with his second incision. Louis, imagining that the conical form of the stump depended rather on the retraction of the muscles than of the skin, divided by one stroke of the knife the skin and superficial muscles, which were drawn up as high as possible by an assistant; the second stroke divided the deep muscles; finally the bone was sawn through. Alanson commenced by a circular incision of the skin, which he dissected up sufficiently to cover the whole of the stump: he then divided, by one turn of the knife, all the muscles, taking care to direct the blade of the knife obliquely upwards; his object being to form a hollow cone, the base of which was represented by the surface of the wound. The operation was afterwards modified by B. Bell. At the present day a great number of surgeons operate in the following manner, dividing the operation into three periods. In the first the skin and subjacent tissue are divided circularly, and dissected up as in Alanson's method; in the second, the superficial muscles are divided perpendicularly at the folded edge of the skin; and in the third, they divide

at the point where the superficial layer is drawn up, the deep muscles adhering to the bone. Many of these processes are difficult of execution, and produce unnecessary pain to the patients.

These considerations have induced me to adopt a method which I frequently practice at the Hôtel Dieu with some success. I divide with one stroke of the knife the skin and muscles down to the bone frequently perpendicularly, but occasionally obliquely, like Alanson. An assistant retracts the muscles as much as possible, which is further favored by the natural contraction of the parts, and the wound appears like a projecting cone. At the base of this cone I again divide any muscles that are adherent to the bone, and by repeating this process (if necessary,) I can expose the bone as high as six inches. This manner of operating has the advantage of being quick and simple; the surgeon easily preserves as much flesh as is necessary to cover the stump, while this saves the patient all the pain attending a tedious dissection of the skin and muscles. When the soft parts are once divided, it is usual to make use of a small bandage, slit at one end, called a retractor, in order to facilitate the retraction of the muscles. The periosteum is then divided with a bistoury, and detached for some way by rubbing the back of the blade on the bone. The operator now seizes the limb to be removed with his left hand, placing his thumb either above or below the point which is to sustain the action of the instrument as circumstances may require, and commences to saw, at first gently, then more boldly, and again diminishing the action of the saw as he approaches the termination. At this time the assistant should be peculiarly cautious, neither on the one hand to depress the bone too suddenly, lest it may splinter, nor to raise it up against the superior portion, by which the motions of the saw would be impeded.

The *flap* operation consists in dividing the soft parts into one or more portions, called *flaps*, by which the wound is closed. There are two general methods of practising this operation from within out, or v. v.; in the latter the skin, &c. is cut inwards towards the bone; in the former a sharp straight knife is thrust through the limb, and the flap formed by drawing the knife outwards towards the circumference.

The essential character of the *oval* or *oblique* method is the oblique division of the soft parts.

The line described by the incision resembles a V, whose base is somewhat rounded; the point of the V should pass a little above the place

where we intend to cut the bone, and should always fall on that part of the limb least provided with flesh, bloodvessels, and nerves.

Amputation *in the joint* was well known to the ancients, but had fallen into disuse until revived by Heister, Petit, and Brasdor. Though apparently it is a grave operation, it sometimes succeeds exceedingly well; thus it is incontestable that when the superior extremity is removed at the joint the cure is more rapid, and the accidents less to be dreaded than when the member is divided at some point of its length. But we cannot apply the same remark to the removal of the thigh at the hip-joint, a circumstance which depends without doubt on the great extent of the wound which we are obliged to make. The flap operation is peculiarly suited to amputations in the articulations, though some surgeons prefer the oval incision or even the circular.

Amputations and Disarticulations of the Superior Extremities.

1. Amputation of the Fingers at the two last Phalanges.—

This amputation may be practised either by taking one flap from the palmar surface of the finger sufficiently large to cover the whole surface of the wound, or by two flaps, one short on the dorsal surface, the other more long on the palmar; the object of the latter method is to place the cicatrix high near the dorsal surface of the stump. The operator first demiflexes the portion of the finger to be removed, and with a straight bistoury divides the skin and posterior portion of the capsule, over the projecting extremity of the phalanx; the knife then divides the lateral ligaments, and completes the operation by cutting from the palmar surface of the finger sufficient skin to cover the greater part of the wound.

*2. Amputation of the Finger at the Metacarpal Articulation.—*The hand must be placed in a state of pronation, and the fingers bordering on that which we wish to remove, are to be kept separated from it by an assistant. Instead of following the ordinary method of two oblique flaps, I prefer to divide the soft parts perpendicularly, by a semilunar incision, extending from the dorsal to the palmar surface of the finger; when this incision has been made, the instrument is directed upwards to the articulation, which it opens, and turning along the opposite side of the phalanx, reaches the extremity of the original cut; the blade turned directly outward completes the second flap by dividing the integ

ents perpendicularly to the thickness of the finger as in the former case. When the fingers to be removed are the medius or ring fingers, I prefer removing with a saw the head of the metacarpal bone, because I have remarked that if this be not done, the fingers, while they remain separated at the base, approach each other at the tips, and do not perform their functions with facility.

3. *Amputation of the Fore-arm.*—The rule which directs us to preserve as much of a limb as is possible, by amputating at the greatest distance from the trunk that the injury will allow, is peculiarly applicable to the fore-arm, because it is sensibly smaller as we approach the wrist, the operation on this account becomes more simple, and occasions a smaller stump. However, a very distinguished surgeon has advised to amputate always at the most fleshy part, because he conceives the tendons near the wrist are not suitable for furnishing a good suppuration; but as we amputate daily at the wrist-joint with success, why not equally so a little higher up? Hence most surgeons disagree from this doctrine, and divide the limb as low down as possible. The circular flap is that which I generally prefer; the arm is to be demiflexed and pronated while the brachial artery is compressed by an assistant. I then divide the skin circularly, and detach it from the subjacent cellular tissue to an extent proportioned to the thickness of the limb; my next cut divides the soft parts to the bones, after which I proceed to cut the muscles, &c., in the inter-osseous space in the usual manner; the bones are to be sawn through together; and in order to effect this, you must be careful to place the fore-arm in the greatest state of pronation, so that the ulna may lie on the same level with the radius, and that the bones may be held steady without vacillating. Should I find any reasons to induce me to adopt the flap operation, I perform it with a double-edged blade in the common manner; but I may remark, the flap operation in the trunk of a member has been banished from modern surgery. The circular method is more rapid, does not compel us to leave a quantity of soft parts below the point when the bone is divided, and affords a neater stump.

4. *Amputation of the Fore-arm at the Elbow-joint.*—This operation was for a long time neglected by surgeons, but acting on the rule which I have before mentioned, of preserving as much of the arm as possible, I always prefer it to the amputation of the arm where the state of the

soft parts permits. The following is the method which I follow:—The fore-arm being about one-third flexed, a straight double edged knife is plunged transversely across the articulation in front of the joint, from one tuberosity of the humerus to the other, and by cutting obliquely downwards, forms a flap of the muscles placed on the upper and superior part of the fore-arm. When this flap is raised up the joint is opened by one cut, which divides the capsule and lateral ligaments, and the operation completed by sawing through the olecranon from its anterior surface backwards. In this operation we do not divide the brachial artery, but its branches, the radial and ulnar, which must be tied; the flap is then to be turned up on the inferior extremity of the humerus, and retained in its position by plaster. I have performed this operation ten or twelve times in the manner just described with entire success; it presents the great advantage of preserving more of the limb, while the olecranon being fixed to the cicatrix, affords an attachment for the action of the triceps. When the nature of the injury does not permit me to have recourse to this operation I amputate at the joint, by the circular method, in the following manner: The fore-arm is demiflexed, and a circular incision made about three fingers breadth below the condyles of the humerus, including the skin and fascia. These parts are drawn up by an assistant, and the muscles divided and raised also, until we come to the joint which is to be opened, and the olecranon removed exactly as in the former operation.

5. *Amputation of the Arm and Thigh.*—It is useful to unite the descriptions of the amputations of the arm and thigh, as we thus save much unnecessary repetition. There is no part of the superior or inferior extremity at which we may not be called on to amputate, because the injury alone indicates the point where the cutting instrument is to be applied; but in general we should operate as low down as possible. For the amputation of the thigh we require five assistants; one to take charge of the healthy limb, a second to compress the femoral artery on the pubes, a third to sustain that part of the limb to be removed, and to apply the ligatures; a fourth to sustain the superior portion of the limb, and a fifth to supply the operator with any thing which may be required, as sponge, knife, &c. I generally employ the circular incision, by which I divide the integuments and superficial muscles; these are strongly retracted by the assistant, and I easily get sufficient to cover the stump, by

dividing the deep adherent muscles on a level with the point to which the others are drawn up. The operation is well done, when the wound represents a hollow cone, about two inches deep, with the bone in the centre; and when the quantity of soft parts left is just sufficient to cover the stump well.

6. *Amputation of the Arm at the Shoulder-joint.*—The various methods devised for this operation, may be reduced to four general principles; in the first we make an external and an internal flap; in the second the flaps are anterior and posterior; these two embrace the most usual methods of amputation; however, Sanson has proposed the circular operation, and Scoutetten the oval; but we may here remark, that it is evidently impossible to lay down any fixed and invariable method for the amputation at the joint of the shoulder, because in many cases the destruction of parts will not permit us to adopt any preconceived process, but compels the surgeon to take his flap wherever he can find sufficient soft parts to cover the wound.

The method which I recommend varies, therefore, according to the exigency of the case, but it may be reduced to two principal operations. The first consists in the following manner of proceeding:—The limb being elevated from the trunk, the operator grasps the deltoid and the soft parts covering the humerus externally, and, then passes his knife from before backwards, immediately under the acromion, and close to the head of the bone, so as to form by one cut his flap of the deltoid muscle. This flap is to be held up by an assistant, &c.; the capsular ligament and tendons divided; the blade of the knife is then to be carried between the bone and muscles, which are to be detached from above downwards, as far as the insertion of the pectoralis major; at this time the artery must be carefully compressed by an assistant, and the operation is terminated by cutting through the muscles, to their attachments, the tendons forming the walls of the axilla, together with the integuments. This operation does not require for its execution more than a few seconds, and furnishes an excellent stump; but I must confess it has the inconvenience of placing one flap externally and the other internally, hence I do not employ it except when actually obliged by the state of the parts.

The second method differs from the former in this, that the flaps are placed anteriorly and posteriorly; the arm is elevated to a right angle with the body, and an incision is made, extending

from the summit of the acromion to the posterior edge of the axilla, dividing all the muscles in this track. We thus form the posterior flap which, when raised up, exposes the posterior part of the articulation. The arm is now to be brought forward on the chest in order to throw back the head of the bone and make it project, by which means the capsule, tendons, &c., are easily divided. The bone being disarticulated the knife is now carried in front of the bone, the artery is compressed by an assistant, and the anterior flap formed by cutting from above downwards, the soft parts which cover the anterior and internal portions of the humerus. This process appears to me to be the most simple and advantageous which we can adopt. The cicatrix is always small and rapidly formed. We have not to fear axillary abscess, so often observed after the other method, and it has this advantage over the method of Baron Larrey, that it is performed in a much shorter time.

Amputation and Disarticulation of the Inferior Extremities.

1. *Of the Toes.*—The great-toe used generally to be removed at its metatarsal articulation; but this method was found to produce many inconveniences. The head of the first metatarsal bone forms after the operation a projection which retards the healing of the wound. The shoe continually presses against the same part after the cicatrix is formed, and keeps up a constant state of irritation. On this account I prefer removing the toe by cutting through the first metatarsal bone. It has been objected to this method, and I confess with some justice, that as the head of the metatarsal bone affords a strong point *d'appui* for the inside of the foot, it should always be preserved, in order to avoid the necessary inversion of the foot which follows its removal. Were this inversion general the objection would be a strong one, but I have never observed it after any of the numerous operations of this kind which I have performed. The nature of the parts concerned in this operation requires several incisions; the first flap is taken from the soft parts on the inner side of the metatarsal bone, and requires three incisions, viz., a superior internal one, commencing behind the head of the metatarsal bone, and extending to the articulation; a second similar one made on the sole of the foot; and a third, perpendicular, which unites the anterior extremities of the two former; the external flap is formed by a dorsal and by a plantar incision between the first and second metatarsal bones; the flaps are now raised

the bone exposed; a thin splint of wood being passed between the interosseous space, in order to protect the soft parts from the saw, the first metatarsal bone may be divided from within upwards to complete the operation. The amputation of the great-toe is most frequently rendered necessary by the presence of a white tumour, with caries of the metatarsal articulation. Sometimes the disease is confined to the phalanx of the toe, in other cases it extends to the metatarsal bone, destroying the cartilages.

2. *Amputation of the Middle Toes.*—It has been generally laid down as a principle, that it is better to amputate the toes at the metatarsal joint than at the articulation of the phalanges; but I do not adopt this opinion, and prefer usually removing one or more of them as the case may require. This operation is peculiarly adapted to the curvature of the second toe, when it does not depend on an affection of the plantar fascia. Since the beginning of this year (1833,) I have performed many operations of the second toe for this deformity, and have obtained the most complete success. As the process is mostly identical with that for the removal of the fingers, I shall not repeat it here.

3. *Of the Five Metatarsal Bones at their Tarsal Articulations.*—Chapart was the first to divide the partial removal of the foot at the articular line, which unites the os calcis and astragalus to the cuboid and navicular bones; but neither he nor his followers seem to have reflected how necessary it is to preserve as much as possible of the foot to give a large surface for the support of the body. By Chapart's method, this surface was very considerably removed, and, also, from the division of the anterior and posterior tibial muscles at their attachments, there resulted a considerable twisting of the leg backward. From these considerations I am inclined to prefer amputating at the tarso-metatarsal line, and never have recourse to Chapart's operation, except when absolutely compelled by the nature of the injury.

4. *Of the Leg.*—For the amputation of the leg, as of the arm, I employ, almost exclusively, the circular flap. The point at which it should be performed is not here left to the discretion of the operator, but marked out by the form and functions of the part; hence we should lay it down as a rule to amputate at the junction of the superior with the middle third, that is, to divide the bone at this point, in order to preserve the flexor tendons there attached. Besides this advantage, we avoid on the one hand the danger

of opening the joint by going too high up, and, on the other, the inconvenience of a long stump, which is liable to ulcerate on the slightest accident, and is always in the way; however, as we are occasionally obliged to amputate above this point, we may, according to the method of Larrey, saw through the heads of the tibia and fibula, avoiding, if possible, the attachment of the ligamentum patellæ.

The method which I am in the habit of employing, consists of the following steps, viz. 1st. The circular division of the integuments; 2nd. The circular division of the muscles &c. to the bone; 3rd. Division of such parts as adhere very closely to the bone; 4th. Adjustment of the retractor; 5th. Division of the periosteum; 6th. Division of the bone.

5. *Of the Leg and the Knee joint.*—If I speak of this operation at present, it is only to declare, that I think with most other surgeons, that it is inadmissible, and that we had far better divide the femur, and then endeavor to form a stump of this kind.

6. *Of the Thigh at the Hip-joint.*—There are certain cases in which no chance remains for the patient but to submit to the uncertain and truly frightful operation of the removal of the thigh at the hip-joint. It had never been attempted, except in cases where some injury, suppuration, &c., had already destroyed the greater part of the integuments near the articulation, when Larrey applied it in military surgery to cases of gunshot, where the wound was close to the joint. His method consisted in the formation of an external and an internal flap, the femoral artery being previously taken up.

The method of Guthrie differs in many respects from that of Larrey; he is content with compressing the vessel; he then divides the skin by two semicircular incisions, commencing about four inches below the anterior-superior spine, and continued obliquely until they meet at the posterior part of the thigh. The muscles are next divided in the same manner, and the operation finished by disarticulating the bone.

Beclard makes use of two flaps very similar to those of Larrey, but he does not tie the artery beforehand. The following is a brief description of a method which I prefer to any other I have seen. The surgeon places himself on the inner side of the limb to be removed; if he be ambidexter, he uses the right hand for the right leg, the left hand for the left leg; the crural artery must be strongly, compressed by an assistant on

the arch of the pubes. The operator sustains the thigh himself, and gives it the elevation, abduction, &c. necessary in the different periods of the operation, which he commences by making a semilunar incision (the convexity looking downwards) from the anterior-superior spine of the ileum near to the tuberosity of the ischium. This incision divides only the skin, which is to be retracted by an assistant; the muscles are then to be divided in the same direction so as to make an internal flap of about four inches in length; when this is raised up, the exposed capsule is opened, and the operation completed by the formation of an external flap. Since the middle of the last century this formidable operation has been performed a great number of times, and we can count about twenty cases of success; but it is not easy to calculate the chances of failure from the want of exact records. We may also remark, that there are few operations which have given so much exercise to the ingenuity of surgeons, who have, in their endeavors towards perfection, described no less than *three* methods by the circular incision; *eleven* by the flap, and *two* by the oval method, without counting an innumerable number of minor modifications.

Having given this short account of the different methods of operating applicable to the removal of a limb, it becomes necessary to speak of an essential part of the process, viz. "of the means proper to suspend the course of the blood during operations, and to prevent hemorrhage afterwards." We can readily conceive the terror which an amputation inflicted on the old surgeons, who had no means of arresting the circulation. Various expedients were resorted to with little success, until Petit invented the tourniquet, which I have endeavored to improve in an instrument called the compressor. All the means actually employed may be included under two heads, viz. pressure, and a preliminary ligature. Pressure may be exercised either by an instrument or by the hand. I seldom, except in special cases, make use of the former, always confiding the vessel to an intelligent aid. However, two conditions are absolutely necessary to the success of the latter, viz. the artery must not be deep seated, and must lie over some resisting substance. If we were asked to enumerate the vessels which range themselves under these conditions, and which may consequently be trusted with every degree of safety to compression, I would say, the acromial arteries; the brachial in its whole extent; the radial artery; the collateral arteries of the fingers; the femoral artery

where it passes the pubes; the articulares; the posterior tibial near its termination, and dorsal branch of the anterior tibial artery.

Again, we may be inclined to ask what kind of pressure should we use, whether by the hand or by an instrument. I am in the habit of invariably confiding the care of the vessel to an assistant, and I have never had any reason to repent this measure. But this charge should never be confided to any but an intelligent man, possessed of readiness of mind and sang froid, acquainted thoroughly with the situation and relations of the vessel, and of the direction in which pressure should be made to be efficacious. There are certain amputations in which pressure may be altogether dispensed with; for example, when the vessel is divided by the last stroke of the knife, which completes the operation. In other cases we are compelled to apply a ligature preparatory to the operation, but I know only one to which this is strictly applicable, viz. when the disorganization of the soft parts and the state of the artery are such as to make us fear that we cannot apply a ligature on the surface of the stump after the operation.

In whatever manner pressure be made, it should be continued until all the arteries are tied. In all amputations of the upper or lower extremities, pressure with the hand is exercised on two chief points; on the axillary or brachial artery for the former; and on the crural or femoral artery for the latter. The pressure of the axillary artery, made as it usually is, before or behind the clavicle, is not always without risk, hence I give particular directions to the assistant, when I am about to remove the arm at the shoulder-joint, to seize the anterior flap at the moment it is about to be cut, and to compress the artery. In exercising pressure on the femoral artery, the assistant should take care not to compress any inguinal gland, as this would give intolerable pain. In some very fat persons, it is impossible to compress the femoral artery, by the hand, at the middle of the thigh. Here we should have recourse to the instrument; the same observation is applicable to pressure on the artery at the fold of the ham, and we should always bear in mind, that wherever pressure is exercised, the points of the fingers, instead of pressing horizontally, should, if possible, form a right angle with the vessel.

I do not propose to treat here of those arterial hemorrhages which come on during the course of an operation, an accident which can only happen when the main artery of the limb

not compressed with sufficient care. I would rather draw your attention to a species of hemorrhage which has not been neglected by authors, I mean those arising from the veins. It sometimes happens, that at the moment the soft parts are divided, though the course of the blood has been suspended by pressure, a considerable quantity of this fluid rushes in a body from the wound; and the unexperienced surgeon becomes frightened at this accident, puts a stop to the operation, or increases the flow of blood by disturbing the assistants who are occupied by compressing the main vessel. In such a case the operator should be guided by the color of the fluid discharged; a dark color indicates that it comes from the surface of the wound, and is of little consequence, as it will soon cease to flow. But when we operate upon parts abundantly supplied with veins, where the circulation cannot be arrested, the discharge of dark blood continues, and embarrasses the surgeon by covering the whole surface of the wound, as we frequently have occasion to observe in laryngotomy or tracheotomy,—sometimes large venous trunks are divided, the blood escapes in great quantities, and the patient becomes pale, and seems often on the point of expiring; we have examples of this in amputations near the large joints, in extirpation of certain fungous tumors, of cancer, &c. The cause of these hemorrhages is to be sought for, not in the state of the parts operated on, but in that of the patients themselves. In fact, if we pay attention to the state of a patient, we may observe that while endeavoring to struggle against the pain which he suffers, respiration is completely suspended; hence the blood, not finding a passage through the lungs, stagnates in the vena cava and its branches, and is determined in quantity toward the vessels which are opened by the knife; in such cases the ligature is of little use; the most beneficial and rational mean is to make the patient breathe, in order to re-establish the venous circulation; scarcely have the lungs dilated forcibly once or twice before the hemorrhage ceases; but we must caution the patient against any renewal of his efforts, as the loss of blood is sure to return with the exciting cause.]

Of the means necessary to arrest Hemorrhage after Amputations.—The Cautery, &c.—The Ligature.—M. Amussat's Method by Torsion.

Cautery, &c.—The first care of the surgeon,

after an amputation, is to effect the obliteration of the divided vessels, which would otherwise, in most cases, give rise to a fatal hemorrhage; for this purpose, Hippocrates proposed nothing but a calming regimen, and the elevation of the stump. Celsus advised the application of a sponge steeped in vinegar, a means which may be useful when only small vessels are concerned, but totally unavailing when large arteries are divided. Paul, of Ægina, applied the actual cautery to the stump, and this method was followed for many years after him. The Arabians, in order to avoid the loss of blood, were not afraid to amputate the limb and with red-hot knives; others endeavored to remove the part by first inducing gangrene with a ligature.

Ligatures.—These, and various other methods, were in vogue, when Ambrose Paré invented the ligature, which, with the modifications which it has received in latter times must be considered as the most sure and simple method of arresting hemorrhage. The manner of applying the ligature is so well known to you all, that I need not describe it here at any length. The extremity of the vessel is seized with a forceps, and drawn out from the surrounding substance by an assistant, who closes on it the knot of the ligature. Bromfield, an English surgeon, was the first to revive this method, which is very nearly the same as the first process employed by A. Paré. The English surgeons also frequently use a kind of hook, called a tenaculum, with which they lay hold of and draw out the vessel; this instrument is very convenient, especially in the country, where the assistants are not always too well instructed, and I frequently employ it myself. Threads, of different materials and size, are usually employed in the composition of the ligature. It has been latterly imagined, that ligatures made of animal substances, being more analogous to the surrounding tissues, would be absorbed, and give a greater chance of union by the first intention, but experience has not confirmed the truth of this idea. I have always found that animal substances are as surely expelled from the wound as vegetable, which have this advantage in addition, that they are applied with much more precision, and are more readily procured. Much importance has been always attached to the form of the ligature: most of the practitioners advise that all the threads composing it should be placed on the same plane, in the form of a riband, in order that the coats of the ves-

sel should not be cut through too quickly; others, on the contrary, prefer a round ligature, which they say insures the division of the internal and middle tunics; but it seems proved that the efficacy of the ligature is independent of its flat form, for be it ever so flat, when drawn tight, it assumes a rounded form. It sometimes happens, that a small vessel retracts within its cellular sheath, or is so placed, that it cannot be drawn out by the tenaculum. In these cases we are obliged to tie the vessel by a different process, called the mediate ligature. The surgeon passes a curved needle, armed with a thread, a little above the extremity of the vessel, through the flesh in its neighborhood; the needle is repassed a second time, so as to embrace some portion of the surrounding tissues, which, being drawn out, are enclosed within a double knot by an assistant.

In the application of the ligature, the surgeon should take the greatest care not to embrace with the artery any large nerves or veins. From the former result intolerable pain and many severe accidents; while the ligature of the veins is often followed by phlebitis and death. Finally, he should be cautious not to pass the tenaculum merely through one half the circumference of the vessel, as secondary hemorrhage may be the consequence. When blood flows from some small branch which we find it impossible to discover, we must have recourse to the actual cautery. An important point connected with the ligature of arteries is the consideration of the parts which it should embrace, and the degree of constriction necessary. When the ligature has been drawn too tightly, the cellular coat is divided, the clot which should form a permanent bar to the circulation, is expelled, and hemorrhage comes on; if, on the other hand, the ligature is not sufficiently tight, the cavity of the artery will not be obliterated, and the circulation is re-established in the vessel.

The danger of secondary hemorrhage is much greater after the mediate ligature than when the artery alone has been tied; the reason of this is evident, for the enclosed parts soon diminish in volume, and the ligature of necessity ceases to exercise any pressure on the artery. It is impossible to enumerate the number of vessels which may require to be tied in each amputation; for it is recognized in principle and in practice that we should proceed to tie every artery that bleeds, even though the blood may not escape in jets, if we wish to avoid the danger of a secondary hemorrhage.

Torsion.—It remains for me to speak a few words about a method lately invented by Amussat, called "*torsion*." Surgeons had a long time observed that contused wounds were not liable to bleed; that when a limb torn off by a cannon ball, by machinery, &c. even the large arteries do not furnish blood; hence M. Amussat was induced to make various experiments on animals, in the course of which he was led to the idea of twisting the vessel with a forceps adapted to that purpose. When seized and drawn out from the surface of the wound, the vessel is turned for six, ten, fifteen, or twenty revolutions; according to its size, until it is on the point of giving way, until it is completely ruptured; after which the wound is dressed in the usual manner. This operation is sufficiently simple, and if always successful, might take place of the ligature. Let us therefore for a moment endeavor to appreciate its true value. When M. Amussat proposed torsion in 1829, he had made numerous experiments upon various animals, and the method had constantly been crowned with success, even when applied to arteries such as the brachial and femoral. Afterwards he employed this means in a certain number of amputations performed before several surgeons. Amongst four examples of amputation of the thigh there were children of from seven to twelve years of age; one amputation of the arm was performed on a man of fifty years, whose arm was fractured by a ball in July. In all these cases it was successful; no secondary hemorrhage came on; but union by the first intention was obtained in only one case. As soon as this method became known, it was quickly employed in foreign countries; in Prussia by Lieber; at Hamburg by Fricke; at Dresden M. Schrader applied torsion to the branches of the temporal artery, the thoracic, and the brachial; in no case was the operation followed by hemorrhage, and the same surgeon has asserted in a paper written upon this subject twelve or fourteen facts from his own practice which are all more or less favorable to torsion. M. Delpech, indeed, was unsuccessful in two amputations when he tried torsion of the arteries; but we should remark, that one patient died the 48th day after the operation, the other about 18 days, and that neither had suffered from secondary hemorrhage. However, we should compare with these cases of success many examples in which surgeons of undoubted ability have failed. Sometimes inflammation and se-

uration along the sheath of the vessel have followed the employment of this means; sometimes it has been found insufficient to arrest the bleeding, and occasionally it has been totally impossible to apply it, and the ligature became necessary after many fruitless efforts. With regard to union by the first intention, which it would seem at first sight to favor extremely, experience has shown that torsion does not enjoy any marked advantage above the ligature. From these and various other considerations I am inclined to conclude that the new method of M. Amussat may be applied with security to arteries of a small calibre, but that we cannot prudently trust to it when the vessel is of any magnitude.

Dressing after Amputation.

Reasons for delaying it for a short time.—It has been the usual custom to proceed at once to the dressing of the wound as soon as the hemorrhage has been arrested by the application of ligatures, but I conceive we may depart from this established custom with much advantage; and, in fact, for several years I have been in the habit of letting one or two hours pass over before I think of applying a regular apparatus of dressing to the stump; being content to place on the wound a simple compress, sustained by a light bandage.

My reasons for this line of practice are the following:—It frequently happens, that in spite of the attention and care of the surgeon to tie every vessel that bleeds, a few hours after the operation a secondary hemorrhage comes on, which is often dangerous to the patient, and which always compels us to remove the dressing to examine the surface of the stump. Now, when a regular apparatus is put on immediately after the amputation, we cannot be aware of this hemorrhage before all the bandages are soaked in blood, and consequently not before it has produced on the patient a certain debilitating effect. The cause of this accident is easily explained. Sometimes it arises from some small branches which were not tied, because they did not bleed at the time of amputation. Here the vessel retracts within the surface of the stump, and does not furnish any blood until after a certain period, when the fluids are drawn towards the wound by the irritation which supervenes. In other cases the suspension of hemorrhage depends either on the moral state of the patient during the operation, or on a certain spasmodic condition produced by terror, &c., or the vessel may not have been properly tied.

In all these examples, one, two, three, or four hours elapse before the afflux of blood to the part, and the dilatation of the arteries gives rise to hemorrhage; for these reasons I am not in the habit of dressing my patients immediately after amputation, and the result is, that secondary bleeding has been extremely rare with me.

I need not remind you that during the interval between the operation and the dressing it is incumbent to leave some assistant by the side of the patient, furnished with every means of arresting hemorrhage should it suddenly come on.

Mode of Dressing.—Let us now consider the subject of dressings. In former times it was the custom to stuff the wound with pledgets of lint, which were supported by a tight bandage, in order to arrest with more certainty the bleeding, and to excite an abundant suppuration, which was thought particularly necessary in amputations practised for chronic affections. Violent pain, excessive inflammation, exfoliation of the bone or conical stumps, were the frequent consequence of this ill-judged practice. But for a few years back, some surgeons have fallen into an error exactly opposite, in carrying to excess a method the object of which is to avoid the slightest suppuration and to obtain the immediate reunion of the divided parts. Several practitioners of celebrity have been seduced by this illusory hope, but, at present, experience has led us to adopt a just medium, and to apply our dressing according to the nature of the case.

The manner which I generally prefer is as follows, and has for its principal object to preserve all that is useful in union by the first intention, while a free exit is left for the fluids to escape from the wound. The ends of the ligatures are collected in one bundle, and placed at the inferior angle of the wound; the muscles and integuments are then brought into contact, and retained by straps of adhesive plaster, with convenient bandages. In this way the fluids are conducted by the ligatures to the angle of the stump which is not quite closed, and we never have occasion to observe effusion, infiltration, or abscess, formed within the cavity: the greater part of the wound heals by the first intention; and suppuration sets in only at that portion which borders on the ligatures, and does not in general continue after they have come away.

As a general rule and guide for the application of the divided surfaces of a stump we may

say, that when the circular incision has been employed, the line of the closed wound should correspond with the small diameter of the limb; if the oblique incision, this line should represent the great diameter of the oval; and if we operate by flaps, the bleeding surfaces, of course, should be placed in contact; thus, after the circular amputation of the arm and thigh, the line of union should run across the limb from one side to the other, and the ligatures should be placed at the posterior angle of the wound; but when the leg or fore arm has been removed, the lips of the wound should be united from before backwards.

Union of the Stump.—I shall take this opportunity, before I conclude the subject of amputations, to make a few observations on the relative value of mediate and immediate union of the stump. The older surgeons were unable to give any opinion upon the subject, because from their method of operating, they seldom preserved sufficient soft parts to cover the stump. The application of the muscles and integuments to one another, in order to obtain a complete covering for the stump, and a speedy cicatrix, were first proposed by B. Bell, in 1772, and converted into a principle of practice by Alanson, in 1779: since which period it has been universally, and almost exclusively, employed by the English surgeons. In France, union by the first intention was received with much greater reserve, but having been employed successfully in many cases by Dessault, and afterwards by our military surgeons, the doctrine gained numerous partisans, and innumerable examples of a happy termination were collected in a short time. I confess that I was for several years an advocate of the doctrine; but observation and experience have convinced me that the supposed advantages of this method are not real, and that we lose a much greater number of patients by employing, exclusively, union by the first intention, than if we follow that which I have latterly been accustomed to use. I have compared a considerable number of facts, and have found that of thirty patients treated by our method, six die; while nine, out of twenty-nine, have perished when immediate union has been attempted; this disproportion is very great.*

* We do not know whence M. Dupuytren has drawn this his calculation, but it certainly is not taken from his hospital practice; we remember perfectly his saying, not long ago, that

However, immediate union may be tried with advantage after amputations practised for particular injuries or wounds; for example, on the field of battle; for there we have a patient in vigorous health, who has not been debilitated by any preceding disease, or by an old suppuration to which the constitution has been accustomed. But in the civil hospitals, on the contrary, the patient is usually affected with some organic disease; is reduced by a suppuration of long standing, or by continued pain. Here, when we amputate the diseased limb, we suppress suddenly an irritating cause, which has modified the whole organization of the individual. The economy is seldom able to accommodate itself to this sudden change, and some visceral inflammation usually comes on. Besides, are we to imagine that when the lips of a wound are kept in close contact, either by sutures or bandage, no secretion takes place in its interior? This would be an error. It is well known that the edges unite much quicker than the deeper parts, and hence, from a continued weeping of the smaller vessels within the wound, we have the formation of enormous abscesses; the irritation of the effusion, which acts as a foreign body, produces ulceration, or a large quantity of blood may be poured out into the cavity of the stump, by some vessel dilating, hours after the operation.

To sum up all that I have to say on this subject in a brief space, I would lay down as a rule, that immediate union may be tried after all those amputations which surgeons call primary, but that it is never to be applied to amputations practised for a chronic disease.

Secondary Hemorrhage after Amputation.

Amputation may be followed by a number of accidents which retard the cure, and often endanger the life of the patient: such are hemorrhage, inflammation of the stump, the formation of abscess, projection of the bone, its exfoliation or necrosis, phlebitis, internal inflammation hospital gangrene, &c.

As it is impossible to treat at length of all these complications, I shall conclude this lecture by some observations on secondary hemorrhage.

Secondary hemorrhage is one of the most unfortunate accidents which can succeed an operation; for it comes on when we are least

he considered himself very fortunate when he saved one-third of his cases of amputation.—*Translator.*

prepared for it, and when the patient, full of security, thinks only of an approaching cure. It shows itself at different periods, which it is impossible to foresee; sometimes a few minutes or hours after the operation, sometimes several days or even months. J. Petit has observed it twenty days after an amputation of the thigh, and a few years ago, secondary bleeding came on two months after the removal of the leg of a patient at La Charité. After death the surgeon found a fistulous canal, at the bottom of which the popliteal artery had been opened by ulceration.

Besides the causes which I have already enumerated as producing secondary bleeding, there are many others, viz., violent moral affections, exciting drinks, any irritation of the wound, by pressure, or otherwise. In these cases the bleeding usually comes on during the first four or five hours, but sometimes at a later period, and during the stage of reaction. It may also arise from the insufficiency of means used to arrest the hemorrhage in the first instance; thus, when the actual cautery is employed, bleeding often comes on at the separation of the eschar. Inflammation and suppuration of the vessels of the stump also predispose in a peculiar degree to this accident.

These secondary bleedings are often suppressed with great difficulty, on account of the changes which take place in the surrounding soft parts; the tunics of the vessel adhere to the neighboring tissue, and render it often impossible to apply a ligature immediately to the bleeding orifice; on the other hand, the mediate ligature or pressure presents many inconveniences. Under these circumstances it appears better to expose and tie the main vessel at some distance above the stump. I have adopted this line of practice in many cases with success, particularly in one where hemorrhage came on after amputation of the leg. Several ligatures had been successively applied to the vessels and failed to stop the bleeding; the actual cautery was tried more than once with like ill success. After each attempt the hemorrhage was renewed with greater intensity; at last I was obliged to tie the femoral artery in the lower third of the thigh, which was attended with the most happy results. This example has since been followed upon several occasions by other surgeons with equal benefit.

The following observations on Rheumatic affections of the knee joint, were lately delivered

in St. George's Hospital, by Mr. Cæsar Hawkins. Our own experience corroborates the diagnosis, and the propriety of the practice recommended.

RHEUMATIC AFFECTION OF THE KNEE-JOINT.

MR. CÆSAR HAWKINS. "There are some cases, gentlemen, of rheumatic affection of the knee-joint, which have been in the hospital under the care of my colleagues, (the late Mr. Rose, Mr. Keate, and Dr. Wilson,) and one I have under my care at present. These cases are different from affections of the synovial membrane of the joint; and I believe they begin in the periosteum, near the condyles of the femur, and thence pass on to the joint itself. These cases occur in persons who have been previously suffering severely from rheumatism, and I have remarked the following symptoms as characteristic of them:—1st. Very acute tenderness of the skin; the patients cannot bear to have the skin touched, resembling hysteria in this respect. Moving the toes, or jogging the bed on which they lie, gives them the most acute pain. 2d. A pale white glossy appearance of the skin. 3d. The swelling, which differs from simple synovial inflammation, the latter extending around the joint only, whereas this extends around the lower part of the thigh and the upper part of the leg, and pits on pressure, and you can feel a sensation of crackling beneath your finger. These cases, if unattended to, extend to the joint, and ulceration of the cartilages comes on. In their treatment you may rely (as far as the experience of the five or six cases we have had in the hospital allows) upon *calomel* and *opium*, when the constitution will permit it, combined with local depletion when that is required. The progress which these cases make toward recovery, whilst under *colchicum* and local remedies, is very slow, when compared with the benefit that results from their treatment with *calomel* and *opium*. Two grains of the former combined with half a grain of the latter, with a little *antimonial powder* as occasion may require, every five or six hours, is the dose I usually administer. This I would recommend you to adopt in the inflammatory stage, but where you fear that ulceration has commenced, small issues may be inserted over the inner condyle of the femur with advantage, and you will thus give your patient the chance of recovery without an ankylosed joint."

Yale College.—The whole number of students connected with this institution, as appears by the college catalogue just published, is five hundred and forty-one.

REGISTER AND LIBRARY

OF

MEDICAL AND CHIRURGICAL SCIENCE

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, FEBRUARY 6, 1833.

No. 12.

We would notify our readers, of two errors which occurred in the printing of the sixth number; the review of Dr. O'Beirne's work on the "Process of Defecation," &c. which is taken from Dr. Johnson's "Medico Chirurgical Review;" has been reprinted without acknowledging the source from which it has been derived. We are very sorry that this should have happened, but, living at a distance from Washington, and unable ourselves to overlook the sheets in the progress of publication, such mistakes are unavoidable. The subscribers to the Journal are aware that the objects of its publication, is not to furnish original papers, but to make selections from the numerous European journals which we receive, of the most interesting articles, and to republish standard works. Our office is a humble one; it is to examine all the new publications, and merely with occasional short notices, present the new facts or valuable essays which they may contain, to the members of the profession in the United States. The reviews, therefore, which we may publish of European works, may be considered, unless the contrary is stated, as being taken from some of our cotemporaries in Europe. We shall confine our criticisms to the medical publications which emanate from the members of the profession at home. The second error to which we would allude, is the ridiculous story about a live mouse having been swallowed, recorded in one of the German journals, being published without comment. When we marked it for republication, we sent on some observations of our own on its absurdity, and of our incredulity as to its truth. We should be sorry to have it believed by our read-

ers that we would swallow a story like that of a child's mouth being converted into a mouse trap.

In our fourth number, we announced to the subscribers to the Register, &c. that it was our intention to attempt the vindication of our medical institutions from the misrepresentations which had been circulated by certain travellers, as to the inferiority of the education which they furnish, as compared with that provided for the British students, in the medical schools of Great Britain, and we commence, in the present number, the plan of comparisons which we, in the number referred to, marked out as a fair and legitimate mode of deciding whether the medical instruction provided for the pupils in England, was of so superior a character as some are desirous to inculcate.

That we may not be accused of unfairness, we have determined to select the gentlemen who are considered the most eminent professors of medicine in England, and we shall begin by the republication of some of the lectures of Dr. Elliotson, Professor of the Theory and Practice of Physic in the University of London. This gentleman, by the universal consent of his countrymen, occupies the very highest rank as a medical teacher in England, we shall, therefore, compare his lectures with some of those delivered by Dr. Revere, the distinguished Professor of the same department, in the Jefferson Medical College, Philadelphia.

In the present number we publish the valedictory address delivered by Dr. Elliotson to his class last May, on the conclusion of his lectures for the session 1832-33, and the introductory lecture delivered by Dr. Revere in Jefferson Me-

Jefferson Medical College on commencing his course this present session. We are willing to admit that a gentleman may be qualified to deliver an admirable introductory or valedictory discourse, and yet be a very inefficient medical teacher; and it is not our intention to rest the comparison as to the comparative qualifications of the two gentlemen whom we have selected as Professors of the Theory and Practice of Physic in the two countries, on this single test. Our sole object in publishing the lectures of the English and American Professors, which are contained in the present number, is to convince our friends on the other side of the Atlantic that, their sneers to the contrary notwithstanding, the English language can be written with as much chasteness and purity by a native American, as by a native Briton. Dr. Elliotson is a highly educated Physician, a graduate of the University of Cambridge, a privileged Fellow of the Royal College of Physicians, and a London Professor of the Theory and Practice of Physic. We shall leave it to our readers, both at home and abroad, to decide by comparing the composition of the two discourses, whether the American Professor suffers any thing when compared with his English cotemporary, as an English scholar and writer.

Our reason for selecting the valedictory lecture of Dr. Elliotson is its shortness. The object of valedictory and introductory lectures is the same, and the style and composition of a writer can be as well judged of by two as by a dozen pages.

In our future publications we shall select, for continuing the comparison which we are desirous to establish, as to the qualifications of the two professors for the offices as medical instructors which they occupy, lectures of a practical character.

A DISCOURSE

Introductory to the course of Lectures on the Theory and Practice of Physic in Jefferson Medical College, session 1833-34. By JOHN REVERE, M.D.

MEDICINE—Its advantages.

It has been said that the arts and sciences are so intimately related, that it is impossible completely to understand any one, without some acquaintance with all. They have been said to resemble a chain, the links of which are so interwoven and inseparably connected, that no one of them can exist independently of the rest. They have also been compared to the branches of a tree, which shoot out in opposite directions, yet they all unite in a common trunk, and produce the same fruit—the welfare and happiness

of man. There is certainly, gentlemen, great force in these analogies; but the comparison may be even carried further. In former ages this chain was the badge of a privileged class;—this fruit the exclusive property of a few. The great mass of mankind were considered too gross; their natures not sufficiently sublimated, to participate in the ennobling influences of knowledge. They might admire this fruit, and inhale its delicious perfume at a distance; but the repast was reserved for a few choice spirits. It is not the least striking or honorable feature of the present age that these false views are exploded; that it is now an acknowledged maxim that all may participate in the blessings of knowledge; that science, literature, and art, are a common inheritance, and that their end is to promote the happiness of all mankind.

But if this intimate relation exist between the arts and sciences generally, the connexion between the different departments of our profession is still more close and inseparable. Though, for the purpose of investigating the multiplied topics which constitute the elements of the science of medicine, we divide it into various branches, yet all these elements ultimately constitute but one indissoluble whole. It is the more common practice, in an introductory lecture, to confine one's self to illustrating the history, excellencies, and, often, magnifying the especial importance of the particular branch to which the professor may be devoted. Though the department allotted to me in the course of medical instruction in this institution—the Theory and Practice of physic, as you are aware—offers topics, peculiar to itself, sufficiently copious and inviting, yet I propose, on the present occasion, to take a wider field, and one in which, from the nature of the subject itself, I hope to engage your sympathies. Excellence in any pursuit must be the result of enthusiasm and exertion. It may perhaps assist to enkindle yours, or cause it to glow with a brighter and more fervid flame in the noble profession in which you have embarked, to take a hasty glance at some of its excellencies and advantages.

It is a privilege, gentlemen, enjoyed by the profession of medicine, to combine in its study interest and instruction in a higher degree than any other. In the other liberal professions, a young man may find some apology for entering upon them with coldness, and prosecuting them with indifference. A profound knowledge of them can only be attained in the retirement of the study and by laborious research, and there-

fore tend, necessarily, to exclusive and unsocial habits. There is also something repulsive and uninviting in the topics themselves. It is not surprising that a young mind, even though ardent in the pursuit of knowledge, should turn with disgust from the unsatisfactory subtleties of polemics, or be turned aside from the direct path to legal eminence, by its uninteresting technicalities and details. But whoever enters upon our profession can have no such apologies for coldness or want of zeal. It does not keep us aloof from mankind, and draw us into a world of our own creation, but it leads us into the very texture of society, and exacts a constant and active exercise of the duties and obligations that men owe to each other. A knowledge of it is not to be sought exclusively in searching the labors of others by the midnight lamp; but the volume which is spread before us is the great book of nature, and we cannot move in any direction without encountering some of the objects with which it is concerned. Wherever we go, like a man travelling in a country with which he is familiar, we meet with interesting objects and acquaintances at every turn.

"We find tongues in the trees,
"Books in the running brooks,
"Sermons in stones, and good in every thing."

Among the advantages of the profession of medicine, may be mentioned the facilities it gives us of forming the most intimate associations with our fellow creatures, and studying the human character from the closest scrutiny. Whether at home or abroad--among the most polished or barbarous nations, our profession furnishes us a passport which not only protects us from insult and danger, but secures to us all the rites of hospitality and kindness. It is not opposed to the interests, or any of the strong prejudices of mankind; it does not interfere with his hopes of gain; it clashes not with his religious prejudices; and its objects are void of every political bias. It presents itself at a moment when his energies are prostrated: when the motives and passions with which he is usually agitated, are soothed or silenced by the paramount influence of disease. When racked with pain, and seeing himself, perhaps, rapidly approaching "that bourne from which no traveller returns," and from which our nature so involuntarily revolts, our profession presents itself, like his guardian angel, and offers him relief, consolation, and hope. It has nothing, gentlemen, gairish or ostentatious in its character; it does not court the noise and bustle of the crowd; it

is not to be found in the excitement of the change, or the brilliancy of the drawing room, but its proper sphere is the most quiet and retired nook of private life--in that most sacred retreat from which all others are excluded. He stripping his person and his mind of those fagions and restraints with which he chooses to blind and dazzle the world, the patient presents himself to us in his true character, and often communicates freely to us what he conceals from his dearest friends. Hence it is that the character of a physician is viewed, even among rude and uncivilized nations, not only with tolerance, but with a degree of respect bordering on veneration. It has been found the safest garb for the traveller; and affords him the best opportunities of studying the character and manners of the people with whom he may happen to sojourn, and has often been had recourse to by modern travellers. It has been remarked, that the most reserved and inhospitable people, even the jealous and haughty Moslem, admits the physician within the forbidden precincts of the harem, where it would be instant death for another to be found.

Mr. Madden, one of the most interesting modern travellers in the East, himself a member of the profession, has furnished some curious facts in illustration of the above observations. He has also given some amusing information respecting the state of the profession of medicine in Constantinople, though it certainly does not place it in a very dignified attitude. He informs us that every *Medico* has his allotted quarter, where he beats the ground daily in pursuit of patients, and visits all the coffee houses in the district, with his Greek dragoman as his interpreter. "They are ever to be found (he remarks,) on the public bench of the coffee shops, smoking their pipe with the most profound gravity, and prying into the features of those about them for some symptom of disease. I confess, says he, I had to descend to this degradation to get practice, in order to become acquainted with the diseases and domestic customs of the people. The first day his dragoman, who had just left the service of a Roman Doctor, and had been practising on his own account since his discharge, took upon him to teach him his professional duty. This he made to consist in never giving advice before he got his fee; in never asking questions of the sick; and in never giving intelligible answers to the friends. He was to look for symptoms only in the pulse, and was to limit his prognosis to three words. *Inshallah*--Please

d. This was to be his answer for doubtful cases; and *Alla Kerim*—God is great—for desperate ones. The first day he took his post in the coffee shop, had his pipe and coffee, while his goman entered into conversation with those about him. He soon heard him narrating a miraculous cure that he said he had seen the doctor perform some days before on a dying Effendi; that he had taken out his liver, and, after scraping off the disease, put it in again; that the patient got well the next day, and gave him five purses. Though exceedingly annoyed, the fellow seemed to heed his anger little, and even reproved his want of prudence with a frown. This extravagant tale, however, procured him two patients before he left the coffee house. He got into an extensive practice, not only in Constantinople, but several other cities of Asia, which enabled him to acquire a great deal of curious and valuable information respecting the customs and manners, as well as the endemic diseases of those countries. This he has transmitted in one of the most instructive of modern books of travels. He has given us numerous examples of the high respect in which our profession is held in those countries.

But not only is our profession held in high respect among both the most polished and uncivilized nations, but it is easy to show that it is fully entitled to the confidence and gratitude of mankind. If any doubt, gentlemen, could be entertained respecting the beneficent influences of our profession, it would be easy to remove them by recurring to the results furnished by modern medical statistics. They offer the most triumphant demonstration of the indissoluble union that exists between the moral and intellectual improvement, and that of the physical condition of mankind. A few facts will be sufficient to show you that, in proportion as the physical sciences and useful arts have advanced in modern times, not only have they contributed to the conveniences and elegancies of mankind, but that they have exerted the most surprising influence in extending the average duration of human life. "From actual registers kept at Rome from the time of Servius Tullius to that of Justinian, a period of ten consecutive centuries, it is found that the mean term of human life was then about 30 years." But from the most accurate calculations it appears that the average duration of human life among the same class of persons in England at the present day is fifty.* This ex-

traordinary difference may be partly attributed to local causes; but it is doubtless chiefly owing to the improved condition of mankind. This may be inferred from the increased duration of human life in the same countries during the last 50 years, a period of the greatest improvements in the physical sciences and useful arts. A number of remarkable facts bearing on this point have been related by Dr. Hawkins in the Gulstonian lectures. He states that, in the year 1780, the average annual mortality in England and Wales was 1 in 40 of the whole population, while in 1821, the mortality was only one in 60. In the cities of Great Britain the increased duration has been still more remarkable. In the middle of the last century, the annual mortality of London was 1 in 20; it is at present but 1 in 40. Thus it appears that the chances of human life have doubled in that metropolis within 40 years.

But it will not be contended that this diminution of mortality is altogether attributable to the improvements that have been made in the science of medicine. The great advancement in all the useful arts; the cultivation of the earth; the draining of marshes; and the great improvements that have taken place in modern times in the police of cities, have had their full share in ameliorating the condition, and extending the duration of the life of man. But, even in these respects, our profession has exerted a powerful, though indirect, influence, by investigating the origin of diseases, and pointing out the means of remedying them. Manchester furnishes us with the following striking illustration of this remark: "The mortality of this city about the middle of the last century was one in 25. It has gradually diminished, and is now perhaps the healthiest city in the world. Though the population has now quadrupled, and is the second city in population in Great Britain, the average deaths in 1811, were but 1 in 74." It is due, says Dr. Hawkins, to the memories of Drs. Percival and Ferriar that we ascribe a large share of this improvement, to certain police regulations introduced by them."—*Med. Chir. Review* v. II. p. 424.

But, gentlemen, this surprising extension of human life is not merely attributable to the indirect influence of our profession. On the contrary, it has exerted a direct and powerful agency in the accomplishment of this important end. Look at the results of modern surgery, and see the numbers of our species annually snatched from wha-

*Dr. Hawkins's Gulstonian Lecture.

was formerly deemed inevitable death. One of the oldest physicians in Massachusetts stated before a committee of the legislature that 100 cases of death from strangulated hernia had occurred within his knowledge and memory. The great proportion of these cases would now undoubtedly be saved by an accomplished modern surgeon. Let any one, but even slightly acquainted with the nature of disease, and the modern improvements in its treatment, imagine for a moment how much human suffering and loss of life must have been diminished by a single modern improvement in the practice of physic—that of treating phlogistic diseases by cooling remedies. Let him reflect for a moment on the inevitable consequences of treating typhus and yellow fevers, scarletina, measles, and small pox, with bark and wine, and keeping the patient immured in a close apartment, surrounded by curtains, and loaded with blankets!! Terrific as his imagination may depict the consequences of such practice, it will scarcely equal the absolute results as portrayed in the works of the older writers. But the greatest of all the achievements of our profession in modern times remains yet to be mentioned. I allude to the discovery of the illustrious Jenner, who stands preeminent among the great benefactors of his species. To form some estimate of this, the noblest triumph of our profession, or, I may rather say, of the genius of man, over the accidental circumstances in which he has been placed, one or two facts may be mentioned. In a series of 22 years previous to the discovery of vaccination, the deaths from small pox in London, alone, were 44,000. Again, the *annual* mortality from this disease in Great Britain and Ireland was estimated at 45,000; besides the numerous individuals affected for the remainder of their lives with blindness, deafness, lameness, consumption, and every variety of deformity and disease, so often the results of small pox, when not fatal.

From these facts some idea may be formed of the dreadful ravages committed by this loathsome malady among the remainder of our species. Compare these results with its present effects, when perhaps not half the physicians in the civilized world have scarcely seen a case of it, and you will be able to form some idea of the debt of gratitude due by mankind to the illustrious discoverer of vaccination.

There is, gentlemen, another result of medical statistics connected with our present inquiry, which is particularly interesting to us as Americans and physicians. It is the intimate con-

nexion shown to exist between the physical fare of mankind, and free political institutions. It might have been anticipated that, where men are left to the most free exertion of their energies for their own private benefit, that there they would be most completely developed and vigorously put forth. It might have been supposed that, in proportion to the freedom of the political institutions of a country, therefore, that a great mass of the people would be better fed, clothed, and lodged, and that they would foster all those arts and sciences which would tend to ameliorate their condition. It is gratifying to find these anticipations realized by accurate inquiries in Europe. In England, long the freest country, the annual deaths are only 1 in 60. In Sweden and Holland, 1 in 48. These are the freest countries in Europe. But under the despotic governments of Austria, Prussia, and Naples, the annual mortality is 1 in 33 to 38 of the whole population. In Petersburg, the capital of the Russian Empire, the deaths exceed the births. Speaking on this subject, Dr. H. remarks: "So intimate connection exists, indeed, between political institutions and public health, that wherever feudal distinctions have been abolished; wherever the artisan and the peasant have been released from arbitrary enactments; there, also, the life of the lower classes has acquired new vigor. It is even certain, says Dr. H., that the power of enduring hardships and bodily strength is divided among the nations of the earth in proportion to their relative prosperity and civilization."

It is the end of education to teach men to think and judge correctly in the various circumstances of life in which they may be placed. The more the mind becomes enriched with just ideas of the phenomena that are constantly presenting themselves, the more certainly and effectually will this be accomplished. In this respect, our profession presents to its disciples the highest advantages. There are no subjects more copious or interesting, or more constantly pressing themselves upon the attention, and supplying materials for thought, than the physical sciences, which constitute the elements of our profession. But their influences are not altogether intellectual; their moral tendencies are also to be taken into the account. He must be dull, indeed, who cannot become acquainted with the surprising designs, ingenious contrivances, and admirable adaptation of parts to the purposes to which they are destined; the infinite variety of springs and movements, checks and balances, exhibited in

ature, without feeling himself wiser and better. Instead of looking with a vacant and lack-lustre eye upon the phenomena of nature and art that are constantly presenting themselves, every thing is viewed with intelligence and interest. As the mind becomes instructed, and comprehends the numerous operations that are taking place within us and around us; and as the film of ignorance and prejudice fall from our eyes, the wisdom, benevolence, and majesty of the Creator, become manifest, and Nature, eloquent in his praise, stands confessed in all her purity and loveliness.

It has been, as I think, falsely alleged, gentlemen, against our profession, in common with the other physical sciences, that there is something unfavorable in its tendencies to the interests of religion. But though it will be admitted that there is much about it averse to intolerance, fanaticism, and bigotry, yet we may assert that there is no pursuit more congenial to enlightened and just views of religion than ours. The nature of our studies, and the spirit of all scientific investigations, tend to awaken an ardent, uncompromising love of truth. While they teach us to look to human reason as the proud and distinctive attribute of our species; as that faculty which alone enables us to distinguish truth from falsehood, good from evil; yet they, at the same time, point out its imperfection, and inculcate a becoming modesty in all its deductions. While they present to us in the most palpable forms and striking colors, all that is sublime and beautiful in Nature, they, at the same time, inculcate the most touching lessons of awe and veneration to the source of power and goodness. Their spirit is as much opposed to unreasonable scepticism as to blind credulity. In the language of Mr. Herschel, "they teach us to hope for all that is not impossible, and to believe in all that is not unreasonable."

Nor are we prepared, gentlemen, to admit that our profession has shown itself cold or indifferent in supporting the interests of religion. From whom does rational religion derive its great support?—From what sources have Paley, and Chalmers, and Channing, the great modern champions of the evidences of Christianity, drawn their most forcible arguments and happiest illustrations, but from the materials furnished by the physical sciences?—Nor will our profession be found wanting in this respect, when tried by, what all must admit to be, the true test and touch-stone of the argument,—*its fruits*. It is

my conviction, that in no profession will there be found a greater number of individuals distinguished for the purity of their morals, the elevation of their sentiments, their practical benevolence, and enlightened piety, than in the profession of medicine. Would time permit, I might give you numerous exemplifications of this observation: but I must limit myself to alluding to one familiar to you all.—Where have these qualities been more strikingly and beautifully illustrated than in the patriarch of American medicine?—*The illustrious and venerable Rush!*

The daily routine of the successful physician is but a succession of exciting and, for the most part, agreeable duties. His time is spent in passing from one scene to another, adapted in the highest degree to call out the strongest and best emotions of his nature. It is his fate to have constantly passing before him, and to be an actor too, in some of the most affecting and stirring incidents in the drama of life. Though the scene is constantly changing from "grave to gay," yet wherever he goes, and whatever the condition of those he visits, he seldom fails to be received with the cordial welcome of a friend, and to be greeted with affection, confidence, and respect.

The practice of medicine in the city and country differ widely from each other; yet they have each their peculiar attractions. Both offer opportunities to the most highly gifted and cultivated minds; and both are constantly presenting opportunities most favorable to the development of our highest moral and intellectual energies. Our cities probably hold out the widest field for ambition and excitement; and offer to professional success the highest meeds of wealth and fame.

But, though it has been my fate, gentlemen, to spend my professional life in cities, yet it has appeared to me that a country practice, under favorable circumstances, was perhaps quite as much to be coveted. If it does not present the same brilliant prizes, neither does it threaten the same number of fatal blanks. If the city offers a wider field for ambition, there are more hands abroad to reap and glean it. If it offers greater opportunities of excitement and competition—yet what so likely to rouse the base and sordid passions?—The country practitioner is in a great degree relieved from those schemes of ambition and policy, which a person of nice sentiments cannot always either practice or approve, but

which, in a city, it must be admitted, are too often made tributary to success. His time, too, passes not only more tranquilly, but in the enjoyment of more simple and rational pleasures, and is more equally divided between healthful exercise and professional occupation. Instead of being confined in narrow streets and noisome alleys, and jostled by a crowd, where every thing is confined and artificial, his life is spent amidst the simple but grand objects of nature. How agreeable the contrast presented to the country physician, going out to his morning duties amidst the more attractive scenes of nature; where all the senses are courted by objects which tend to elevation and refinement of feeling. The extended landscape expanding to his view, with every leaf and flower gemmed with dew, and redolent with fragrance; the earth smiling with fertility and beauty; and the air sending forth a varied, but harmonious song of praise to the Giver of every Good.—I have lived, gentlemen, too long for romance; yet I cannot but think that the habitual contemplation of such scenes as this must have a strong influence in refining the taste and invigorating the moral and intellectual faculties of this class of our professional brethren.

I have thus, gentlemen, given you a hasty sketch of a few of the excellencies and advantages of medicine.—The moral I would draw from it is, to exhort you, who are just commencing your career in this noble profession, to resolve, from this moment, to attain its highest honors and distinctions; to ascend all its heights and sound all its depths; and to make to yourselves a name that shall neither be overlooked or forgotten. But, to accomplish this, gentlemen, vain will be the inspirations of genius or the aspirations of ambition, unless sustained by earnest and patient labor. But to perseverance, energy and enthusiasm, every thing is possible. There cannot be a finer or more appropriate study in this respect, than the character of Bichat: It is a striking monument of what may be accomplished by an individual in whom genius, and industry, and method, are united. While a very young man, he was driven, by that moral tornado, the French revolution, from one of the provincial towns of France to Paris, where he commenced the study of medicine, unpatronized and unknown. A trifling accident in the lecture room attracted to him the attention of Dessault. Their talents and characters were congenial, and the result was, an ardent personal friend-

ship, which only terminated with the life of the latter. Dessault invited him to become an inmate of his house; fostered and directed his genius, and opened to him the brilliant career which has reflected so much honor on his nation and profession. Bichat went to Paris as a student of medicine in 1793, and had resided but nine years in that city at the time of his death. The labors he accomplished in that short period seems almost incredible. Besides acquiring a knowledge of his profession, attending to his private practice, and his laborious duties as surgeon to the Hotel Dieu, to which he was early appointed, he also delivered lectures on anatomy. In addition to these, his ordinary duties, he edited the posthumous works of his friend Dessault, published his own work on the membranes; another on life and death, his descriptive anatomy in 5 large 8vo. vols, and his celebrated work, the *Anatomie Generale*, one of the greatest scientific efforts of the age; in which he has established his claim to a rank among the great founders of medical science. All his works display a great fund of professional erudition, besides his own vast original researches and observations. As an instance of his indefatigable industry, it is recorded that, during the winter, he was composing his work on the membranes he examined not less than 600 dead bodies.

His death, like his life, was marked by his devotion to science. While examining some specimens of morbid anatomy, subjected to the process of maceration, at the Hotel Dieu, he became affected by the noxious exhalations, and fell in descending the stairs. The shock was at first supposed to be slight and transitory; but he was soon afterwards seized with delirium, which terminated in stupor, and he died on the 22d July, 1802, aged but 31 years.—Thus fell in the flower of his age and the fulness of his fame, Xavier Bichat! leaving behind him a name as imperishable as the archives of our science, and a character which cannot too often be held up for the admiration of those who have embraced our profession.

There is a resemblance, gentlemen, between your situation and that of this institution. Like you it is devoted to the noblest of professions, and like you it may be considered as having commenced a career, destined, I trust to attain the highest meed of fame and honor.

I cannot close this discourse without congratulating the alumni and friends of Jefferson Medical College, on its actual prosperity, and its

brilliant destiny. We, at least may be permitted to express gratification and even exultation at a success unparalleled in the history of similar institutions. It is but right for us to acknowledge our gratitude for the deep interest and warm approbation manifested in our enterprise, and the urgent encouragement to persevere that we have received from the most distinguished members of the profession in every part of the United States. But this, gentlemen, is only the beginning of a success, which, I feel the deepest conviction, will as much surpass the most sanguine expectations of its friends, as it has already the predictions of its enemies. I perceive this, gentlemen, in the unquestionable abilities and peculiar fitness of the members of this institution for their offices, and the union and harmony that animates all their movements. I see it in the sound principles which they have embarked in this enterprise. Not in counting as their strength what others have done—not in pointing as a proof of their merit to a long list of illustrious dead, and reposing upon their laurels. But, remembering that in this country, at least, the battle must be won by the quick, not by the dead; and in looking, therefore, alone for their hopes of success to *their own inherent energies and strength*. I see an earnest of the brilliant success of this institution, gentlemen, in the enthusiasm with which both professors and pupils have devoted themselves to their duties. In that love of professional pursuits which has induced so large a number of the pupils, during the past month, so eagerly to avail themselves of studying in season and out of season, anatomy,* the only sure foundation of a medical education. These circumstances have impressed upon my mind a conviction of the future, scarcely weaker than that of the past. Thus—

“As the sun ere it is risen,

“Sometimes paints its image in the atmosphere,

“So, often do the spirits of events

“Stride on before the events themselves;

“And in *to-day* already walks *to-morrow*.”

* The dissecting rooms were opened this season in Jefferson Medical College, on the 1st of October, and were numerous attended. It is the intention of Dr. Pattison, the Professor of Anatomy, to have the rooms for the study of Practical Anatomy always open for one month before the commencement of the lectures, and to allow the students who intend to enter for the lectures of the Jefferson Medical School the privilege of dissecting without the payment of an additional fee.

VALEDICTORY ADDRESS,

Delivered by Dr. ELLIOTSON, Professor of the Theory and Practice of Physic in the University of London, on the conclusion of his course for the session of 1832-33.

We have now arrived at what I intend to be the conclusion of the course. I have spoken of an immense number of diseases to which flesh is heir, and I have endeavored to tell you all I myself know about them.

I of course must rejoice, as I am sure you do, that our labors are at an end—that is a natural feeling for both of us. I am sorry to part with you, because I have every reason to be delighted with the attention I have received during the course; yet as we are all anxious for a remission of laborious exertion, I congratulate you that the scene of my labors is at a close.

I have endeavored to speak of all those diseases which naturally come under the care of the medical practitioner. I have not digressed in order to speak of other diseases, and to mention a number of other subjects, because I knew that I had so much on hand that the time would scarcely be sufficient to do justice to those which came particularly in my own province. It may be that there are some other diseases which I ought to have spoken of, but I do not think there are any which I have omitted that are not fully treated of in other courses: I allude to surgical diseases, and diseases of the female organs of generation, a few of which, although they may come under the treatment of the physician, yet they must be particularly spoken of by the professors of surgery and midwifery. I have taken advantage of that circumstance to pass over some affections which I am in the habit of treating in private practice every day. I hope I have not wasted any time in displaying my knowledge on topics foreign to this course of lectures, because I had too many of my own to be desirous of saying any thing more than was strictly necessary in my particular department.

You are aware that all the instructions given can be of no avail unless you see the facts which are stated, verified. Unfortunatly, in this institution, we have not the means of giving that instruction which is necessary; but I believe I may assure you, that before this time twelve-month, the most active means will be taken for affording clinical, medical, surgical, and obstetric instruction. I have advanced nothing marvellous in order to produce an effect, but I have

been anxious simply to inculcate real truth, so far as I myself am aware that it is truth.

I do not know whether it is usual now, but it was when I was a student, to give advice at the end of a course as to your future conduct. I am not one of those who are disposed to give much advice, because I suppose every gentleman here knows what is right and what is wrong. I am sure the attempt to quote scripture, or preach a sermon to you, would be quite out of place.

But there are two things which I am particularly anxious to impress upon you, and these are—that *in your profession you will never lose sight of its real delight*—that you will never become mere practitioners, going about to see your patients, and ordering medicines just as a baker goes distributing loaves round a parish, but that you will consider it a source of true intellectual delight. There is hardly a case that occurs that may not afford you an intellectual exercise, and enable you to advance your own knowledge a little. Very few practitioners, I am sure, pass six months in the year without having an opportunity of advancing, not only their own knowledge, but adding to the general stock. If you become mere dull, routine practitioners, I shall indeed be extremely sorry. I trust you will always consider, that although you enter the profession for the purpose of gaining a livelihood, yet happily in our pursuits there is infinitely a greater delight than this—that we have the means of leading the lives of philosophers—of using our intellect and improving science, which cannot be said of a large number of occupations to which men are unfortunately destined.

The other point to which I wish to direct your attention is, *to avoid every thing that can bring the profession into disgrace*. We all witness medical squabbles, and I think nothing can be more contemptible than personal jealousies, carried on so unfortunately as we often see them. When you are in practice, never give an opinion upon any case unless it is in your own hands. When a case is under the care of another individual, never should an opinion be given upon it, unless it be to corroborate what he has said, and establish him in the estimation of the patient. If you see a man treating a patient in a disgraceful manner, that is another case; but even then it is much better to see the individual himself than to make any disturbance about it. When you are attending with another practitioner, nothing should be done to lower him in the opinion of the patient. It is right, if you can, always to express your coincidence of sentiment with a brother practi-

tioner; and if you differ from him, you should not let the patient know it, but argue the point in private. Never say any thing to make a patient think you would have treated him better than your predecessor. If it so happen that a medical man should ill treat you, (and we must all expect to meet with that,) it is best to keep the matter quiet; because if you complain of being wronged, the world will only shake their heads and significantly say, "two of a trade—two of a trade," and you will gain nothing by it. When your conscience satisfies you that you are the injured person, it is best to learn to pass things over, and avoid as much as possible any appearance of a medical squabble to the world.

I will not pretend to lamentation and grief at parting with you, because I shall have to part with some every year, and I must reserve my tears and lamentations for more serious occasions. I feel the greatest obligation to you for the kindness with which you have listened to me, and I owe you an apology for having frequently been late, but I assure you it was unavoidable. In fine, I can only say, that on any occasion on which I can be of use to you, it will afford me the greatest pleasure.

We publish in the present number of the "*Register*," &c. "A Report of Cases illustrative of the treatment of Gonorrhœa," published by Mr. H. J. Johnson, House Surgeon to the Lock Hospital, London.

The author is a son of the distinguished editor of the "*Medico Chirurgical Review*." When in London, we knew him as a student, and are now glad to find that he is realizing the high opinion we then formed of his talents and promise, as a Surgeon. He is a son worthy of his father.

The present paper, as the author remarks, "is essentially a statement of facts," recorded with great clearness and discrimination, and to those we would beg the attention of the profession. We are the more solicitous on this subject, from the conviction that there are few diseases which men are so apt to treat upon empirical principles as those of a venereal character. Mercury is considered the specific for a chancre, and is too apt to be ordered without enquiry as to the state of the constitution, the history of the sore, and a thousand other inquiries of importance, which ought to be carefully investigated before any plan of treatment should be decided on. So it is with Gonorrhœa. One surgeon invariably prescribes the Balsam Copaib. Another places his entire

confidence in injections, and a third directs the employment of emolients and mucilaginous drinks. Now, as Mr. Johnson justly remarks, "the hope of discovering a specific for Gonorrhœa is as unphilosophical as it is futile." Every case should form a separate study, and should be treated from its existing symptoms, not from preconceived principles. But as the paper itself insists on the subject, we publish it without further comment. It is taken from the last number of the "*Medico Chirurgical Review*." We have marked for publication a number of interesting articles from the same number.

REPORT OF CASES, ILLUSTRATING THE TREATMENT OF GONORRHŒA.

(Lock Hospital.)

[By H. J. Johnson, House-Surgeon]

The treatment of gonorrhœa is confessedly unsatisfactory, often unsuccessful, and frequently empirical. The object of the present report is to display some of the varieties assumed by the disease, and the effects of remedies of different descriptions. As this paper is essentially a statement of facts, there is no necessity for advertent to questions that have occupied much attention, excited considerable and warm discussion, and have not been hitherto decided. I allude to the supposed affinity between gonorrhœa and syphilis, and the secondary symptoms that are said to succeed the former.

The number of cases of gonorrhœa treated at this hospital is necessarily great. They are seldom received into the house, and the circumstances of the patients affect the results, in much the same manner as in the ordinary routine of private practice. Medicines are taken irregularly and excesses are committed, as is commonly the case with patients not submitted to the restraints of hospitals, whatever their station in life may be.

Waiving all attempts at nosological distinctions, gonorrhœa may be divided, for practical purposes, into three leading varieties—gonorrhœa attended with much pain and inflammation—gonorrhœa attended with little inflammation—and gleet. But, independently of these affections, for separate affections they almost deserve to be considered, there are several symptoms or conditions of occasional occurrence, and of greater or less importance. Such are abscess of the cellular tissue of the penis—induration of the corpus spongiosum—lacunar inflammation and enlargement—pain in micturition, unaccompanied by discharge. When we add to this list

the more immediate consequences of gonorrhœa, bubo, inflammation of the bladder, and hernia humoralis, I think it will be allowed that there is ample room for discrimination in the choice of remedies, and judgment in their application.

For my own part, I consider the hope of discovering a specific for gonorrhœa, as unphilosophical and futile. It is not a disease which presents and preserves a sufficient identity in various individuals, to be ever amenable to one plan of treatment. Means may be found of arresting the discharge, but this, so far from being always beneficial, is frequently quite the reverse. It may be urged that as gonorrhœa is a specific disease, a specific treatment may remove it. But I apprehend that the confidence in specifics is rapidly diminishing; and, if syphilis may be cited as an analogical instance, the specific treatment of that complaint is one of the most complex problems in experimental medicine. I mean to imply, that though mercury is really a specific for syphilis, the treatment of that malady by means of its specific is extremely difficult, and requires much caution, judgment and experience.

As gonorrhœa varies widely in its features in different individuals, it is necessary to consider the circumstances of the case, and to treat the particular assemblage of symptoms. The feature of most importance is the presence or absence of inflammation. In syphilis it is highly necessary to attend to this circumstance; in gonorrhœa it is equally or more so. If mercury is given in the former, when much inflammatory action is present, it is probable that sloughing or phagedæna will ensue. If those medicines which check urethral discharge be administered in the latter, inflammation of the corpus spongiosum, of the bladder, or of the testicle, is apt to supervene.

I need scarcely enumerate the symptoms that constitute gonorrhœa attended with much inflammation. It is usually a first gonorrhœa, and there may or may not be general fever. The leading characteristics are, much scalding in the act of making water, painful erections at night, perhaps chordee, and discharge of thick purulent matter. But the latter is not a common phenomenon, and frequently the secretion grows thin and watery, whilst the other inflammatory symptoms continue.

There are many ways of treating this inflammatory gonorrhœa—by cubebs or copaiba—by salines with antimony—by calomel and opium, with or without purgation—by colchicum—by

dilutents, with mucilage, nitre, and so forth. There can be little question that cubebs and copaiba occasionally succeed, even in the inflammatory form of gonorrhœa; but there can also be little doubt that the experiment is one of a hazardous description. I will mention a few cases, in which this kind of treatment was adopted.

CASE 1.—*Gonorrhœa treated by Cubebs—Hernia humoralis.**

Col. C. who had frequently suffered from gonorrhœa previously, was again affected with it in the winter of 1832. The discharge was thick and purulent, and there was considerable scalding in micturition. He consulted an eminent and an excellent surgeon, who prescribed the cubebs. I believe that the dose was raised to two drachms four times daily, or to more than that. The discharge was suddenly arrested, and hernia humoralis, with much inflammation of the cord, supervened. The colonel was laid up with this complaint for two months, and it was necessary to put them slightly under the influence of mercury, before the affection was subdued. With the subsidence of the hernia humoralis, the discharge reappeared, and was again yellow and thick, but unaccompanied by pain in the urethra. Subsequently he took small doses of cubebs, and the discharge gradually ceased.

CASE 2. About the time that I visited this patient, I was also in attendance on a young gentleman in the Regent's Park, situated under nearly similar circumstances. The gonorrhœa was combined with a good deal of scalding, although it was not his first. This gentleman was ordered cubebs by an eminent surgeon. The discharge was suppressed, and acute inflammation of the testis and cord succeeded. There was great effusion into the tunica vaginalis of the testis, and suppuration was threatened. When the month was gently affected by mercury, this patient also got well.

I might mention many other instances of hernia humoralis, following the administration of cubebs, but this appears to be unnecessary.

CASE 3. *Discharge suppressed by Copaiba--suppurating Bubo.*

W. Andrews, a baker, æt. 29, admitted Sept. 7, 1833, under the care of Mr. Briggs. There

was an inflamed and suppurating bubo in the right groin; pyrexia—loaded tongue—irregular bowels. The patient had been attacked one month previously with gonorrhœa. He took copaiba, and, a fortnight after the commencement of the gonorrhœa, the discharge ceased. The bubo then appeared.

The fact appears to be that where there is inflammation to any extent, stimulants or irritants of every description are commonly injurious. Cubebs or copaiba, an injection, a debauch, venereal excitement, or even exercise, aggravate the inflammatory action, which, confined no longer to the anterior part of the urethra, extends backwards to the bladder, and from that along the mucous membrane of the vas deferens to the testis. Sometimes the urethral discharge is suppressed, but I think that commonly it is only diminished. Whether suppressed or not, it usually returns on the subsidence of the hernia humoralis.

CASE 4. *Acute Gonorrhœa--Inflammation of the Cellular Tissue of the Penis--Hernia Humoralis.*

A gentleman belonging to the University of Cambridge slept with a female in London with whom he had been previously acquainted, and had frequent connection during the night. He stated that he experienced almost spasmodic and constant erections. Two days after this, he observed a slight urethral discharge, and tingling in the act of micturition. On the next, or the following day, I was requested to attend him.

The discharge was profuse and thick, the pain in making water great, and the cellular tissue of the penis was so infiltrated with serum, that the glans was almost buried in the mass of the paraphymosed prepuce. I immediately made scarifications with the lancet, and encouraged the bleeding by fomentations. I ordered calomel with active purgatives, and put the gentleman as speedily as possible under the nauseating influence of antimony, combined with colchicum. He was directed to drink large quantities of diuretics. It was necessary to repeat the scarifications, and subsequently to apply leeches freely to the pubes, groins, and perinæum; indeed I contemplated bleeding from the arm to some extent, and in another similar case I would certainly adopt this measure. The inflammatory symptoms gradually abated, and after a fortnight or three weeks yellow discharge alone was left. I was about to prescribe some copaiba, when the

*The majority of the following cases occurred at the Lock Hospital. It will appear that some did not.

gentleman imprudently took active exercise. The consequence was a severe hernia humoralis, for which it was necessary to affect his mouth to a slight extent with mercury. He recovered from this in about five weeks. The urethral discharge continued, but it gradually subsided spontaneously, and in a month, or thereabouts, after the subsidence of the inflammation of the testis, this too had disappeared.

It is worthy of remark that, in this instance, there was no evidence of the female being affected with any discharge, and probably the excitement of the parts was exclusively the cause of the inflammation of the urethra.

CASE 5. *Gonorrhœa relieved by injections--exacerbation after travelling--chronic painful erections, &c.*

A commercial gentleman of one of the midland counties, contracted a gonorrhœa, for which he went to an excellent friend of mine who resided in his town. He prescribed injections, with powders, I believe, of nitre and gum. Whatever was the treatment, the patient was greatly relieved, and would probably have soon been cured. Unfortunately he was obliged to travel to London, and the exertion of the journey, combined, perhaps, with some irregularities of diet, was productive of very injurious consequences. My friend had recommended this gentleman to my care, and he called on me in the morning succeeding his arrival in London.

He was now suffering extreme torture. The desire to make water was incessant—the pain in the act excruciating—the discharge abundant, but not very thick—the erections at night so painful that the patient jumped out of bed every quarter or half hour, and sat with the bare perinæum on the hearth. I tried diluents with mucilages, nitre, and alkalies, in vain. The following plan of treatment succeeded in relieving him.

R. Hyd. sub. gr. v.—Opii, gr. j.—Ant. tart. gr. j. M. ft. pil. ij. omni nocte sumend.

Haust. sennæ c̄ Magnes. sulph. ℥ss. Vini colchici, ℥ss.—Magnes. carb. gr. xv. omni mane.

Haust. salin. c̄ Vin. ant. tart. ℥ij. Vini colchici, ℥xxv. Tinct. camph. c̄ ℥j. 3tiss horis.

The patient was so brought under the influence of antimony, that he could not, without difficulty, maintain the erect posture. Then, and not before, was the extraordinary suffering relieved;

and, after he had been in town for a fortnight, he was able to quit it and return to the country. His mouth was slightly affected by the mercury; the discharge was abundant; there was no pain in micturition, but the painful erections were not quite gone. I have subsequently learnt that this patient again suffered from the latter symptom, and that it passed away on the application of a blister to the perinæum.

The preceding are instances of the acute form of gonorrhœa, and of the bad effects that frequently supervene on the use of stimulants, or the irritation occasioned by improper exercise.

I will now take the liberty of mentioning the plan of treatment that I have found productive of the most beneficial results. I think that in the great majority of cases, the patient is benefitted by the exhibition of a small quantity of mercury. There are two great indications in the treatment of gonorrhœa; first, to reduce the inflammation; secondly, to get rid of the discharge. If there is pain in making water, a few grains of mercury combined with antimony, and, if necessary, with opium, should be given at bed-time for a few nights, and a purgative draught, combined with magnesia, and a little wine of colchicum, should be taken on the ensuing morning. If the inflammatory symptoms run high, salines, with antimony, must be frequently exhibited during the day, and in every case the patient should drink large quantities of mucilaginous diluents, with nitrate of potass, if the scalding is excessive. It may possibly be necessary to employ general bleeding—more frequently it is advisable to apply leeches or cupping glasses to the perinæum, and immerse the patient in a warm bath. If, however, the inflammatory symptoms are not unequivocally great, there can be little question that saline medicines are rather injurious than useful. The discharge is apt to become all at once very thin, and a troublesome gleet succeeds. In these cases, we may substitute another combination with the mercury and the purgatives. It consists of the union of the powder of gum tragacanth, nitrate of potass, carbonate of potass, and Dover's powder. This frequently relieves the pain with great rapidity, and when combined with mercury and aperients, has never been attended with unpleasant results.

The usual effect of the plan of treatment I have here sketched, is to relieve the pain in micturition, and diminish or remove the inflammatory symptoms. The discharge becomes, *pari passu* more thin, and frequently more profuse. This

is a point which requires much attention. It is highly necessary not to carry mercury or depletion beyond a certain extent. If the discharge becomes very thin, before these means are discontinued, it is much to be feared that interminable gleet will follow. The difficulty is, to hit the moment when a change of treatment may be wisely ventured. If we are precipitate, the inflammatory symptoms return, and the scene is to be re-enacted; if we are too late, the prospect of gleet is before us. I think I have observed that it is better to allow slight scalding to exist, when the change to which I have alluded is commenced; I mean that the anti-phlogistic treatment should not be so pushed as to remove all pain in micturition. There should be a little, and a very little.

When the suffering is nearly gone, apparently just on the eve of departure, and when the discharge is profuse, and inclined to be thin but yellow, I would recommend that cubebs or copaiba should be given. My own predilection is in favor of copaiba, for I think that cubebs has succeeded best in those cases where there have never been inflammatory symptoms. Of this I am far from certain, but such is my impression. The ordinary combination of copaiba with the spirit of nitrous æther is good, but that with the tinctures of kino or catechu is usually better. Cubebs may be given in combination with copaiba, or they may be exhibited in separate forms upon the same day. I do not dwell upon these points, because I am now advocating a principle of treatment, rather than weighing the advantages of detail.

Whether cubebs or copaiba be administered, the arrest of the discharge is commonly speedy and decisive. A few days will frequently be sufficient to effect an apparent cure. But this is too often delusive. The discharge is stopped, but merely for a time. After a few days it generally re-appears, watery, and a gleet. Now is the period for injections.

As soon as the discharge is manifestly yielding, or has yielded to cubebs or copaiba, I employ an injection of poppies and acetate of lead in the proportion of half a grain to the ounce. This should be used at night, and allowed to penetrate, without restraint, as far as the ordinary impulsion of the syringe will convey it. The copaiba or the cubebs should not be discontinued. In the course of a week or ten days the injection may be repeated more frequently, and its strength may be increased, whilst the other medicines are gradually abandoned.

I do not pretend that this plan of treatment will always be successful, but I think that it is so in the greater number of instances, and I believe that it is always safe. The watery discharge, observed only in the morning, continues for some time, and so long as it continues, the injections must be used. There is another circumstance deserving of attention. After all apparent discharge has ceased, the patient frequently complains of the lips of the orifice of the urethra being united in the morning by a sort of gum. The patient is liable at any time to have a violent return of the discharge. I have seen this occur in many instances. Whilst this appearance is observed, the injections should be persevered in, and mild aperient medicine occasionally taken.

I have said nothing of the diet of the patient during the inflammatory stage; it should, of course, be low. Afterwards, a very spare diet appears to dispose to gleet. I have so frequently seen discharge kept up by wine and beer, and so frequently return on a resumption of these stimulants, that very great caution indeed must be exercised in their permission.

In the foregoing remarks I have not attempted to notice various plans of treatment, with which I am not unacquainted. I may without impropriety allude to the application of nitrate of silver in the first instance—the use of a bougie introduced simply, or smeared with copaiba or with an ointment of catechu—strong injections of the nitrate of silver—large doses of cubebs. Perhaps I may be twitted with impertinence, for expressing my opinion that I am more disposed to admire than to imitate the courage of those who employ, and the confidence of those who submit to these methods. I cannot doubt, from the respectability of authority by which they have been sanctioned, that such measures have been productive of the happiest results. But the evidence of my senses has convinced me, that they are occasionally accompanied with risk, and that no precautions nor any judgment can in every instance guard against it. I fear that the cure of gonorrhœa is not, and never will be, effected. “cito, tutè, ac jucundè.” In my own person, I would prefer the tardy security of the second of these attributes, to the hazardous celerity of the first. I will now relate some cases illustrative of the treatment of gonorrhœa above recommended.

CASE 6. *Acute Gonorrhœa. Cure.*

Samuel Jacob, æt. 50, admitted as O. P. March 5th, 1833. Yellow discharge—much scalding—chordee. Slight nodule felt in the

corpus spongiosum, posterior to the glans. Complaint for four weeks. Has done nothing.

℞. Hyd. sub. gr. ij. Opii, gr. j. Ant. Tart. gr. ½. M. omni nocte sumend. in noct. tres.

Liquoris potassæ, ℥ss. Vini colchici, ℥x Mucilags. acaciæ, ℥j. 4tis horis è poculo Decocti hordei.

April 20th. Soon after taking the medicine the discharge was diminished, and the pain and chordee disappeared. In the latter end of March the discharge ceased, and the complaint was apparently cured; but, having probably committed some excess, it returned after an absence of a fortnight. The return was last week. He has presented himself to-day in consequence of this.

℞. Confectionis cubebæ, ℥ij. ter die.*

27th. Discharge again stopped.

May 12th. There has been no recurrence of the discharge since last report. He has taken no medicine for the last ten days.

Dismissed cured.

This patient has come lately to shew himself. He has had no relapse.

CASE 7. *Acute Gonorrhœa. Cure.*

James Shanagham, æt. 18, a laborer, admitted Jan. 23d, 1833. Discharge and scalding, which have existed for five or six weeks.

℞. Liquoris potassæ, ℥j. Mucilaginis acaciæ, ℥ij. Aq. dist. ℥iv. Capt. coch. ij. magna 4ter die è poculo aquæ.

Haust. sennæ mane p. r. n.

Feb. 19th. Discharge had disappeared for several days. He then left off the medicine, and probably committed an excess. He has now a relapse. Discharge yellow—return of scalding.

℞. Bals. copaibæ; ℥j. Spir. æth. nit. ℥xxv. Tinct. catechu, ℥ss. ter die.

March 8th. Discharge gone for one week. No medicine for three or four days.

CASE 8. *Acute Gonorrhœa, almost cured—Death from Cynanche Maligna—Examination of the Urethra.*

Thomas Ross, æt. 22, a servant out of place,

* The composition of this is as follows. It was recommended to me by an intelligent young surgeon, Mr. Parsons. The disadvantage of it is, its extreme nastiness. But to return. The confection contains cubebs, copaiba, carbonate of magnesia, and confection of senna.

admitted O. P. Aug. 23d, 1833. Thin yellow discharge—some pain in micturition—painful erections. Complaint for three weeks.

℞. Hyd. submur. gr. v. Ant. tart. Cpi, ʒss. gr. ½. M. omni nocte in 3 noctes.

Hs. salin, ʒ Mag. sulph. ℥j. bis die.

26th. Complains of more pain. Obligated to lie about the streets at night, from poverty.

The patient was received into the house, and ordered a powder containing nitre, tragacanth, and Dover's powder, to be taken every four hours in barley water. The pills, with two grains only of calomel, were repeated for two or three nights more.

In the course of a few days, the pain had almost ceased, the painful erections were gone, and the discharge was thinner and very profuse. He was ordered copaiba and catechu, and in less than a week very little discharge remained. He was now seized with angina maligna, in its most aggravated form, and in three days he died.

I examined the urethra. There was some inflammatory injection of the mucous membrane contained within the glans, and for an inch or thereabouts, posterior to this. The rest of the canal was healthy.

CASE 9. *Acute Gonorrhœa, suppression of discharge, and relapse—Cure.*

James Nally, æt. 30, a laborer, admitted O. P. July 26, 1833. Yellow discharge, with much pain. The discharge has existed for five days; the pain preceded it.

℞. Hyd. sub. gr. ij. Opii, gr. ½, hâc nocte.

Haust. salin. ʒ Tr. hyos. ℥x. Vin. ant. tart. ℥ss. Mag. sulph. ℥j. 4tis horis.

Aug. 1st. Excoriation, from the discharge, on the glans and inner prepuce.

℞. Rep. Pil. o. n. in noctes tres. Lavatio tepida.

5th. Excoriations healed. No pyrexia. Discharge whitish—still much pain in micturition, but no chordee.

℞. Omr. pil. et haust.

Pulv. ip. comp. gr. iij. Pulv. trag. comp. ℥j. Magnes. carb. gr. xv. 4tis horis è dec. hordei.

Haust. sennæ omnimane.

9th. Scarcely any pain; what remains is immediately after making water—discharge much less. P.

23d. No pain--scarcely any discharge since the 11th. Has not applied since that day.

℞. Omr. meda.

Injectio bis die. Dec. papav. c̄ Plumb. acet gr. j. ad ℥j.

Haust. sennæ, p. r. n.

29th. Return of pain after using the injection, --discharge aggravated.

℞. Omr. Injectio.

Hyd. sub. gr. iij. Opii gr. ½ hác nocte.

Magns. sulph. sequente mane.

Sept. 2d. Pain and discharge continue.

℞. Rep. Pulveres olim prescripti.

Magns. sulph. p. r. n.

20th. No discharge nor pain for a week. Has taken no medicine for four days.

To take some powders, and re-apply if necessary.

CASE 10. *Very acute Gonorrhæ. Apparent cure.*

W. Green, æt. 30, a policeman, admitted O. P. June 28th, 1833. Discharge yellow--with excessive scalding--painful erections--complaint three or four days.

Hyd. sub. gr. ij. hác nocte.

Haust. sennæ omni mane in 3 vices.

July 1. Hs. salin. c̄ Vin. ant. t. ℥xij. Tr. hyos. ℥ss. M. ter die.

Rep. Haust. senn.

July 5. Adde Hui. Mag. sulph. ℥j. et rep. 4 tis horis.

23d. Cuc. cruent. lumbis, ad ℥viij.

26th. These means have been productive of no relief. The urgency of the symptoms continues--the pain is intolerable. Probably too the nature of his duties as policeman, obliging him to be out and walking all night, has been mainly instrumental in aggravating the complaint.

℞. Om. Meda.

Pulv. ipec. comp. gr. v. Pulv. trag. c. gr. xx. Potass. nitratis, gr. vj. 4 tis horis c̄ dec hordei.

Hyd. submur. gr. ij. Opii, gr. j. Ant. tart gr. ½, omni nocte.

Magns. sulph. ℥ss. p. r. n.

Aug. 10th. The effect of these remedies has been remarkable. Scarcely any pain in micturition--painful erections continue, though less troublesome--still yellow discharge.

16th. Omit. pil.

℞. Emplast. cantharidis penis infer. parti.

24th. The blister has finally removed all pain, and the painful erections are gone. Discharge less yellow, and not very thin.

℞. Bals. copaib. Sp. æth. nit. āā ℥ss. bis die. Omr. alia.

29th. Scarcely any discharge. Complains of itching within the urethra.

℞. Inject. papav. c̄ plumb. acet. omni nocte. Pulv. rhei c̄ magns. ℥j. omni mane.

Sept. 7th. Says he merely observes a little watery discharge, as the first thing in the morning.

℞. Rep. injectio nocte manque. P. c̄ pulv.

20th. Patient says he is well.

In the next place copaiba was given at the time chordee existed. The consequence was hernia humoralis.

CASE 11. *Discharge with Chordee. Hernia humoralis. Cure.*

James Fowler, a pot-boy, æt. 23, admitted O. P. March 15th, 1833. Yellow discharge--not much scalding in micturition--considerable chordee. Complaint for three weeks. Has done nothing for it.

℞. Hyd. submur. Opii āā gr. j. omni nocte. Bals. copaib. ℥j. Sp. æth. nit. Liq. potass. āā ℥ss. bis die.

23d. Discharge much diminished. Chordee continues, as does the scalding. Right testis swollen, tender--epididymis indurated. Affection of testis for three days.

℞. Hirud. xx. scroto.

P c̄ pil. omni nocte.

Haust. salin. c̄ Vin. ant. t. ℥j. Mag. sulph. ℥j. 6 tis horis.

Omr. balsamum.

26th. Rep. hirud. xij. P.

30th. Hernia humoralis cured. Still some chordee.

Opii gr. j. Camph. gr. v. omni nocte.

Ung. hyd. fort. c̄ Camph. testi.

Mist. mag. sulph. c̄ mag. carb. bis die.

April 10th. Chordee gone. Very little discharge.

20th. Confec. cubebæ, ℥ij. bis die.

23d. Discharge has not appeared for two or three days.

May 4th. Discharge has never returned. Very slight induration of caput minus epididymis left.

The preceding cases appear to be sufficient to illustrate the treatment of gonorrhœa attended with much pain, or with chordee. They seem to prove satisfactorily the value of a small quantity of mercury, combined with opium and with antimony, in relieving the inflammatory symptoms. The cases also appear to shew that considerable pain will sometimes continue, when there is little or no pyrexia, and when it is probable that little inflammation exists. The remedy that exerts most influence on this condition, is in my opinion, Dover's powder, with mucilage, and nitre, or magnesia. I have heard the liquor potassæ much recommended in the treatment of these symptoms. I have also heard nitre strenuously advocated. I have tried both separately and I cannot but conclude that the combination I have mentioned, is much superior to either.

Pain in the urethra (I am speaking of gonorrhœal cases) may present itself as a prominent symptom under three combinations of circumstances. It may accompany acute inflammatory symptoms, with which I have already alluded to it. It may attend purulent discharge, without other symptoms of much inflammation. Finally it may exist as a solitary symptom, constituting for practical purposes, a substantive affection. I have described the treatment which I have found most adapted to the two first varieties of pain, or rather, varieties of circumstances under which pain occurs. The last I shall reserve for separate consideration.

(To be continued.)

GASTROTOMY, IN A CASE OF EXTRA-UTERINE PREGNANCY.

A negress, at Pernambuco, in Brasil, consulted Dr. Benit in May 1830; she expected every day to be delivered; labour however never came on regularly, and soon all pains left her entirely. The swelling of the abdomen was as great as ever; and in course of time, the poor woman's health began to decline. In May 1832, an abscess formed about the naval, and some foetal bones were discharged. Dr. B. then determined to lay open the abdominal cavity by an incision of three or four inches in length, and using his fingers as forceps he extracted the putrid remains of a decayed foetus; the stench was most offensive. The edges of the wound were brought in-

to contact, and the patient confined to a rigorous antiphlogistic treatment for two months. Ultimately she quite regained her health.—*Annales de la Med.*

GANGLIONS OF TENDINOUS SHEATHS.

A man was admitted into St. George's Hospital, July 25, having a ganglion on the inside of the right knee, Mr. Brodie punctured it with a needle, and let out some fluid (yellow) of the consistence of the vitreous humor. Mr. Brodie remarked that ganglions were frequently met with among the tendinous sheaths, but as far as his experience went, they were never met with among tendons elsewhere situated. He was once dissecting a hip-joint, and found a ganglion attached to the capsular ligament of the joint. Such ganglia are very frequently met with in young women, who have them about the wrist, and disperse them by giving them a smart blow with a book, when they break, and the fluid they contain is dispersed in the cellular membrane, and becomes absorbed, and then in the course of time re-collects. The best way to disperse them is to puncture them and let out the fluid, and after doing this two or three times, it will not collect again. If this, however, do not succeed, the ganglion may be laid open and the wound dressed to the bottom, the cavity filling up with granulations. Sir Astley Cooper follows this latter plan.

SPANISH PROFESSORSHIP OF BULL-FIGHTING.

That this *noble* and *elegant* science should not degenerate, it appears that the Spanish Government have established two professorships of the art. The appendix to Spanish work recently published "contains the royal decree establishing a school of Tauromanquia (the scientific name for the art of bull-fighting) at Seville, and appointing two celebrated bull-fighters as professors, with a good salary and other advantages, and directing that there be always twelve pensioned pupils—to prevent, we suppose, the learned professors from lecturing to empty benches. It was about the same time that the government published in the official Gazette, with acknowledged approbation, the congratulations of the University of Cervera; in which it was said, "Far from us Spaniards be the dangerous novelty of thinking!" And it was not long after that the universities and schools all over the kingdom were closed by royal ordinance."

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARPE PATTISON, M. D.

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, MARCH 19, 1834.

No. 16.

REPORT OF CASES,

ILLUSTRATING THE TREATMENT OF GONORRHŒA.

(Lock Hospital.)

[By H. J. Johnson, House Surgeon.]

(CONTINUED.)

It will hardly be necessary to relate many cases of gonorrhœa attended with little inflammation. Cases of acute gonorrhœa are reduced to this state before they can be cured, and the instances which I have already given have shown the treatment which appears to answer best. In order that the report may be more complete, I will sub-join a few.

It is in this form of gonorrhœa which admits of the greatest variety of treatment. Some employ cubebs—some copaiba—some injections. All succeed, all occasionally fail. It certainly has appeared to me that success is more insured even in these instances by commencing the treatment with some calomel for a night or two, followed by aperient medicine. Then we may exhibit cubebs or copaiba, and when a decided impression is made on the discharge, injections may be usefully employed. I certainly would not recommend the use of an injection while pain is felt in the urethra. I must say that even in this milder form of gonorrhœa, I have seen much mischief from too stimulating treatment. I will now proceed to the cases.

CASE 12.—*Gonorrhœa with little inflammation—apparent cure.*

James Gillo, a cordwainer, æt. 24, admitted O. P. Aug. 17, 1833. Yellow discharge—some scalding—has had more. Complaint for eight days—has done nothing.

R. Hyd. sub. gr. iij. hæc. et cras nocte.
Hs. salin. c Mag. sul. ʒj. Vin. ant. t. ʒj. 4ter die.

20th. More scalding—discharge thinner.

R. Hyd. sub. gr. v. Opii. Ant. tart. āā gr j.
o. n. in noctes tres. P. c haustu.

24th. Less discharge and little scalding.

R. Rep. pil. in noctes duas.

26th. Discharge nearly gone—no scalding.

R. Bals. copaib. Sp. æth. nit. āā ʒss. bis die
—om. alia.

30th. Much the same.

R. Bals. copaib. Tinct. catechu, āā ʒss bis die.

Inject. dec. papav. c Plumb. acct. gr. j. ad ʒj.
omni nocte.

Sept. 7th. Scarcely any discharge visible.

R. Rep. injectio. ter die.
Pulv. rhei. c Magnes. ʒj. o. n. Om. alia.

14th. Thinks he has noticed a little water in the morning.

I directed the patient to continue the injection, and return if the discharge should re-appear. I have not subsequently seen him.

CASE 13.—*Yellow discharge removed by injections.*

Robert Dixon, æt. 22, had had gonorrhœa for some time, succeeded by severe hernia humoralis. I believe that this was the effect of the injudicious exhibition of copaiba. At the time I first saw him, he had induration and pain in the body

of the left testis and yellow discharge. I ordered him calomel and opium at night, salines with the sulphate of magnesia, and the mercurial ointment to the testicle. As these means were not productive of relief, I desired him to apply fourteen leeches to the testicle, and increased the quantity of opium at night. In the course of a fortnight from his first application, the testis was quite well; and discharge alone remained. For this I ordered the injection of decoction of poppies with acetate of lead, and the discharge disappeared.

CASE 14. W. Meadland, a tailor, æt. 21, admitted O. P. August 23, 1833. Discharge copious, thin, and yellow. No pain. Tendency to phymosis. Complaint has existed for two months, and there was much pain in the first instance. Has taken copaiba and the spir. æth. nit.

℞. Hyd. sub. gr. v. Opii, gr. $\frac{1}{2}$, hác et crast. nocte.

Injectio plumbi inter præput. et gland.

Bals. copaib. ē Tinct. catechu, bis die.

26th. Phymosis much better Discharge nearly gone. Injiciat inject. in urethram, o. n.

29th. No further discharge.

Sept. 9th. Discharge returned slightly yesterday, after a debauch with beer.

℞. Hyd. sub. gr. iij. Ext. col. c. gr. v. hác nocte.

Magnes. sulph. cras.

13th. Discharge scarcely perceptible.

P. ē Inj. bis die.

After this the discharge disappeared, but he was desired to continue the injection for a time, and to live soberly.

CASE 15. *Discharge without scalding—cured by injection.*

W. Jones, æt. 17, had gonorrhœa followed by hernia humoralis. He came under my care as out patient, on the 19th July. He had discharge of yellow color, without scalding. There was some induration of the epididymis. I ordered him cathartic medicine, with colchicum, for a day or two, and then directed him to continue this in the morning, and use an acetate of lead injection twice daily.

Aug. 1st. Discharge has been arrested for two days.

23d. Has had a return of discharge two or

three times. There has been none for three days.

29th. No return of discharge.

I have seen this patient since the last report. There has been no return of the discharge. For precaution's sake, he continued to use the injection occasionally.

CASE 16. *Discharge cured by Copaiba and Injections.*

Thomas Errol, æt. 21, admitted O. P. July 6th, 1833. Yellow discharge for one fortnight. No pain in micturition. Has taken cubebs.

℞. Hyd. sub. gr. v. hác nocte.

Haust. sennæ cràs.

Confect. cubebæ bis die.

14th. No better. Has been drinking porter and spirits throughout. To discontinue these.

Rep. Haust. sennæ et Pil.

Rep. Confect. 4ter die.

24th. Discharge still thick and yellow.

℞. Omr. Cubeba.

Bals. copaib. ē Tr. catechu, bis die.

Rep. Pil. et Haust.

Aug. 17th. "Very nearly well."

P. ē Bals. semel die.

Inject. Dec. papav. ē Pl. acet. t. d.

Sept. 1st. Cured.

I need not pursue the fatiguing detail of individual cases. They resemble each other in their leading features, and a narrative of experiments with cubebs or copaiba would not be attended with any interest. The cases I have mentioned are calculated to illustrate the treatment I have found most useful.

I would make a few remarks on the subject of cubebs. The confidence expressed in it by many surgeons has long occasioned astonishment on my part. I have seen it employed, and have employed it in a considerable number of cases; but it has seldom been my lot to find it productive of a cure. If the case be well chosen, it commonly stops the discharge, but the latter usually returns as soon as the cubebs is omitted, or even whilst it is continued. The cure is much more certain if injections be combined with the cubebs as soon as the discharge assumes this fugacious character. Nearly the same observation appears to apply to the copaiba.

I have little to say on the subject of gleet. I believe that, in this affection, opposite methods will occasionally answer, but that still more frequently none will succeed. I have seen a gleet removed by blue-pill at night, and cathartic medicine on the following morning, continued for some little time. I have also seen a gleet removed by tonics—by turpentine—by injections—by copaiba. More frequently all these means have failed. Some surgeons appear to attach much importance to the use of the bougie. Whether my fortune has been worse than theirs, or whether I have selected the cases for this method with less discrimination, I will not venture to decide; but certain it is, that I never found the bougie succeed. We naturally attach a higher importance to what we see than to what we hear, and, actuated by this impression, I have little confidence in the employment of the instrument. If the cases I have witnessed lead to a preference of any one method, it is to small doses of mercury and cathartic medicine for a few days, succeeded by astringent or stimulating injections. Much as the solution of the nitrate of silver has been lauded, I have seldom seen it beneficial; but more good has been derived from injections of lead or zinc. It is not improbable that stimulating injections have been much abused in the treatment of both male and female discharges.

ABSCCESS OF THE CELLULAR MEMBRANE OF THE PENIS.

This is occasionally witnessed. I have seen three instances during this year. Two were in hospital patients; one occurred in the person of a gentleman. As the latter was the one which I saw first, I will give it the priority.

CASE 17. *Gonorrhœa neglected. Abscess of the Penis. Chronic Induration of the Corpus Spongiosum.*

A gentleman contracted a gonorrhœa. Circumstances rendered it necessary for him to conceal the nature of his complaint, and he mixed in society, and drank wine. When I saw him the whole penis was considerably swollen from infiltration of the cellular tissue, particularly towards the free end of the prepuce, which was somewhat paraphymosed. The integuments were very red. Independent of the general swelling, I thought there was fluctuation, connected with the inferior surface of the corpus spongiosum, an inch, or thereabouts, behind the glans. There was thick purulent discharge—the pain in micturition was great—the noctur-

nal erections distressing. The gentleman had for a few days been treated pretty actively with colchicum and mercurial purgatives.

I immediately opened the abscess, and two or three drachms of pus were discharged with relief. I ordered, if I remember rightly, leeches and fomentations; and calomel with antimony and opium were continued at night, while salines, with colchicum and sulphate of magnesia, were given during the day. The case was attended by a very intelligent friend of mine, and I saw the patient occasionally only.

The swelling gradually diminished, but was long ere it subsided. As soon as the declension of the subcutaneous effusion allowed a more accurate examination, it was found that the abscess was connected with the corpus spongiosum, or its investing membrane, though its essential seat was in the cellular tissue. The corpus spongiosum was generally indurated, from effusion of lymph.

As soon as the patient was enabled to leave his bed, which was three or four days, he was compelled to take exercise, and engage in occupations not calculated to hasten his recovery. It was an object of great importance that the nature of the illness should not be suspected, and fortunately, by much attention on his own part, as well as on that of his medical attendant, the affection, severe as it was, gave rise to no suspicions. The induration of the corpus spongiosum yielded very slowly, and the abscess reappeared once, if not twice. The treatment consisted in slight affection of the gums by calomel and opium—saline purgatives with colchicum—mucilaginous drinks—alkaline aperients—and repeated blisters to the penis. It is now many months since I first saw this case, and it is only within the last fortnight that I deemed it prudent to attempt to check the discharge. Whilst chronic inflammation was going on in the corpus spongiosum, the discharge was looked on as a natural consequence, and I dreaded that copaiba or remedies of that description would have occasioned fresh abscesses, or hernia humoralis. A fortnight ago the induration of the corpus spongiosum was almost gone. A hard cord was felt in the site of the abscess, connecting the puckered skin with the corpus spongiosum. This cord was probably the contracted cellular cyst. There was no pain—no irritation. I prescribed copaiba and catechu in small doses. I saw the gentleman a few days ago. The medicine had been productive of no unpleasant result, and the dis-

charge was rather diminished. I directed him to increase the dose.

CASE 18. *Abscess in the Cellular Tissue of Penis.*
Discharge. Cure.

John Smith, æt. 20, admitted O. P. Feb. 19, 1833. Penis much swollen—integument red—prepuce disposed to be phymosed. Fluctuation felt on inferior surface of penis, where there is much pain on pressure. Discharge from within the urethra, with much scalding. Painful erections. Complaint for three weeks. Has been under a medical gentleman who treated him with copaiba.

I opened the abscess and let out half an ounce of pus. It had extended between the integument and corpus spongiosum, but it was not clear if the latter was implicated, or otherwise.

℞. Hyd. sub. gr. v. o. n. in noctes tres.

H. salin ē Vin. colchici, ℥ xxv. Magnesiae sulph. ʒj. 6tis horis.

Cataplasma panis et fatus.

The cavity of the abscess rapidly contracted, and the discharge became glairy. In about ten days it had ceased. The acute symptoms had passed away. After an interval, occupied by the employment of alkaline aperients, I ordered the tinctura lyttæ for the thin discharge which alone remained.* The dose was raised to thirty minims four times daily, when the abscess re-appeared, and there was return of irritation. The abscess was opened, and the patient again put upon aperient medicine. Again the abscess closed, and again the discharge grew thin. I prescribed copaiba. The copaiba produced an exanthema, with pains in the limbs, and pyrexia. The discharge was at this time almost arrested. Under aperients, the eruption passed away, and again the discharge returned. Thinking that it might be kept up by some slight inflammation in the corpus spongiosum, which was rather hard in the site of the abscess, I ordered the following ointment to be applied to the inferior surface of the penis.

Ung. hyd. ʒj. Ant. tart. ʒij. Iodinæ gr. x
M. Applr. nocte manequæ.

This ointment usually occasions severe counter-irritation, of a character intermediate between pustule and vesicle. Two or three applications

* The tinctura lyttæ has been much recommended in the treatment of gleet. I have tried it in many cases and succeeded in none.

are commonly sufficient to produce the effect. In this instance it was very satisfactory. The discharge from the urethra diminished soon afterwards.

The patient was now put on copaiba and catechu. The discharge ceased, and on April 10th he was dismissed cured.

The succeeding case differs in some respects from the preceding.

CASE 19. *Circumscribed Abscess in the Cellular Tissue of the Penis. Seton employed.*

James Williams, a servant, admitted into the hospital, Aug. 11, under the care of Mr. Briggs.

Excessive induration on the dorsum of the penis, immediately behind the angle of reflection of the prepuce—induration globular, circumscribed, accompanied with a feeling of tension, as from fluid contained in a cyst. Bubo inclined to suppurate in either groin. Looks pale and out of health.

Had gonorrhœa two months ago. It passed away in about a week, under the administration of copaiba. Bubo immediately succeeded, and he has been ill from that time. The induration did not attract his attention until about a fortnight ago.

℞. Hyd. sub. gr. ij. hâc et crast. nocte.

Solut Magnes. sulph. ē Mag. carb. omni alterno mane.

26th. Swelling increased in size, tender to the touch, fluctuating more distinctly. It was opened through the inner prepuce, and two drachms of pus discharged. Bubo suppurating in two or three points in the right groin.

℞. Pil. Hyd. gr. iij. o. a. n.

Inf. ros. ē Mag. sul. ʒj. bis die.

Omr. alia.

Sept. 12th. The abscess continuing to discharge, and the cavity not contracting, a probe was passed into it, through the opening in the inner prepuce, and the point cut upon through the outer prepuce. A seton-thread was then passed and secured, and the probe was withdrawn.

Sept. 20th. Cavity of the abscess almost obliterated. Seton-thread to be withdrawn in a few days.

INDURATION OF THE CORPUS SPONGIOSUM
URETHRÆ.

This is a frequent consequence of inflammatory gonorrhœa, especially if a stimulating treat-

ment is adopted. It is a structural condition, of which chordee is a common symptom. Merely painful erections are seldom accompanied with distinct induration in the corpus spongiosum. In chordee the source of pain is usually the corpus spongiosum, somewhere between the glans and scrotum. Where there are erections without chordee, the patient refers his pain to the orifice of the urethra.

It does not seem necessary to relate any cases of induration of the corpus spongiosum. The affection is easily distinguished by examination with the finger, and indeed in every case of gonorrhœa, such an examination should be made. Lacunar enlargements and ordinary induration of the corpus spongiosum may exist independently of pain, and copaiba, or injections, might be used injuriously, or without advantage, if the surgeon was unacquainted with the actual condition of the parts.

The treatment of inflammation and subsequent induration of the corpus spongiosum is so obvious, that it scarcely deserves observation here.

Leeches or cupping in the first instance, and subsequently blisters to the perinæum. If the case has been neglected in its commencement, the induration is often extremely obstinate. I have seen a gentleman who applied eight or ten blisters to the penis, and was troubled with this affection for many months.

The application of the mercurial ointment has been much recommended and is greatly practised. In trivial cases it will answer well enough, but in those of any severity it has seemed to me extremely inefficient. Small quantities of mercury, purgatives, and bland diluents are serviceable auxiliaries; indeed, they are almost indispensable. As a means of counter-irritation the ointment of mercury, tartarized antimony, and iodine, the formula of which was given in the last page, may be strongly recommended. Its action differs in some measure from that of a blister, and I have thought it rather more effectual.

Chordee is often treated in a very empirical manner. It appears to be considered a symptom of irritation rather than of inflammation, and narcotics, with camphor, are liberally prescribed. But true chordee can hardly exist without structural alteration of the corpus spongiosum, and that can scarcely be cured, frequently not benefited, by medicines of this description. The treatment of chordee, is, in general, the treatment of inflammation and induration of the corpus

spongiosum, and on this nothing further need be said.

Painful erections are much more amenable to narcotic treatment. I think that the combination of Dover's powder with tragacanth, and magnesia, nitre, or rhubarb, according to circumstances, is the most effectual remedy for this symptom. Occasionally, opium and camphor, opium and tartar-emetic, conium, morphia, &c. succeed. But even painful erections cannot always be treated in this manner. We must investigate their cause. I lately saw a gentleman who was greatly annoyed with this unpleasant occurrence. It appeared that he had always experienced an amatory, indeed a salacious disposition, and was in the habit of very frequent connexion. When suffering from gonorrhœa, he had of course desisted from gratifying his inclination, and the painful erections seemed, on a close consideration of the case, a consequence of unappeased desires. Opium had been tried, and had occasioned an aggravation of the complaint. I directed this gentleman to be cupped once or twice on the perinæum, to abstain from malt or vinous liquors, to eat very little meat, and to take some active purgative medicine every morning. This treatment was followed by an almost immediate disappearance of the erections.

ENLARGEMENT OF THE LACUNAR GLANDS OF THE URETHRA.

This is not uncommon, in connexion with inflammatory gonorrhœa. In that form of the complaint, the mucous membrane is always acutely inflamed, and it is not surprising that the lacunæ, and the corpus spongiosum should at times be implicated. The lacunæ, however, become the seat of inflammation and subsequent induration, in that form of gonorrhœa in which there is little inflammatory action. The most common situation of the affected lacunæ, for commonly it is only one, is a little posterior to the glans. The induration, about the size of a pea, or larger, is generally felt from the under surface of the penis. Occasionally it is connected with the superior wall of the urethra, and is distinguished, by firm pressure, through the flaccid corpora cavernosa. In the first stage there is pain on pressure, in the second there is none.

This affection is commonly brought on, or if not brought on, it is increased and aggravated, by stimulating treatment. Cubebs, copaiba, or injections should never be given whilst the nodule remains. When attending the inflamma-

tory stage of gonorrhœa, the treatment adapted for that stage is adapted for it, and under such treatment the lacunar enlargement usually recedes. Of this I have seen numerous examples. But when a nodule remains, unattended with inflammatory symptoms, the treatment I have found most useful, is mild aperients, abstinence from much animal food, and from stimulants and counter-irritation. I have seen some cases, in which attempts have been made to arrest the discharge during the presence of a lacunar nodule. Such attempts have done no good, but rather tended to a contrary result. It will only be necessary to relate one case illustrative of this affection.

CASE 20. Discharge—Nodules connected with the Urethra—removed by counter-irritation.

Robt. Mackenzie, æt. 32, a tailor, admitted O. P. July 26th, 1833. Yellow discharge. Little pain in micturition. Nodules felt connected with the corpus spongiosum urethræ. They are apparently chronic enlargements, with induration of the lacunæ. The complaint has existed for two months. Has been taking cubebs, copaiba, &c. without any benefit.

℞. Hyd. sub. gr. ij. o. a. n.
Solut. cathart. o. a. m.
Pulv. rhei. ̄ Magnes. ʒj. bis die.

Aug. 6th. P.

℞. Infricetur penis infer. parti. Ung. hyd. ̄ Iodin. et Ant. tart.

11th. Mouth slightly affected. Nodules much reduced in size—discharge much the same.

Omr. pilulæ.

19th. Discharge considerable, yellow, thin. Nodules very much reduced, but not quite gone.

℞. Dec. papav. ʒj. Plumb. acet. gr. ½, pro inject. o. n.

P. ̄ pulv. et solut. cathart.

23d. Nodules no further diminished.

Rep. unguentum.

29th. Discharge rather increased.

℞. Hyd. sub. gr. iij. Opii, gr. ½, hâc nocte et crastinâ.

Sept 6th. Better.

P. ̄ pulv. bis die et inject. o. n. Omr. alia.

20th. Nodules have quite disappeared, since the last counter-irritation. The discharge alone remains. It is evident that the injection has not been serviceable to it. Ordered copaiba and catechu.

The object of the case was to display the treatment of the lacunar nodules. They were probably brought on by the perseverance in cubebs and copaiba in the first instance. The counter-irritation effected by the ointment in this case was excessively severe, yet six or seven weeks had elapsed before the nodules had quite disappeared. The unguentum hydrargyri is occasionally employed for their removal. It appears to me to be insufficient for that purpose; at least, it has been so in several instances which have fallen under my observation.

PAIN IN THE URETHRA, UNCONNECTED WITH DISCHARGE.

I mentioned, in some remarks upon pain in the urethra, that it seems to occur under three conditions—in inflammatory gonorrhœa—with thin discharge, unattended with inflammatory symptoms of any severity—and, finally, as a solitary symptom after others have disappeared. I am ignorant of the condition of the urethra which occasions it, and all that I can do is to offer an account of some experiments, conducted with a view to ascertain the most successful method of treatment.

CASE 21. Pain in the Urethra—removed by alterative treatment.

John Holliwell, æt. 53, admitted O. P. April 19th, 1833.

Very slight pain in micturition, referred to the inferior surface of the penis. It has existed for seven weeks. There was a discharge in the first instance. For the last two days has again had slight and thin discharge.

℞. Confection. cubeb. ʒij. ter die.

29th. Discharge almost gone—pain still troublesome.

℞. Emp. canth. penis infer. parti.
Rep. Confect. o. m. tantummodò.

May 13th. Discharge has quite ceased for many days. Pain continues.

℞. Liquoris potass. ℥xxv. ter die.

June 9. No better. Pain continues; it is acute, and felt always in the act of micturition—no feeling of hardness, nor of any thing unusual commu-

nicated on examination. Patient of a florid aspect—tongue moist, rather loaded.

℞. Pil. hyd. gr. iij. Pulv. ipec. gr. j. M. omni alt. nocte sumend.

Mist. cathart. o. a. m.

July 5. Pain in the micturition nearly if not quite gone. Mouth has not been affected. Soon after this the patient discontinued his attendance, and I have reason to believe that he was quite well. The patient had enlarged prostate.

CASE 22.—*Pain in micturition—not cured.*

John Robinson, æt. 19, admitted O. P. with pediculi, and pain in micturition, attended with little or no discharge. The pain had existed for eight or nine months.

The pediculi were speedily removed by a lotion of spirit of wine. The following means were then tried in succession, for the treatment of the pain in micturition. The ointment of tartar emetic—the ointment of mercury, iodine, and tartar emetic—aperients of the sulphate, and carbonate of magnesia twice daily—blister to the penis—salines with sulphate of magnesia—and the liquor potassæ.

The pain was somewhat mitigated, but far from cured, by these measures, and, shortly after the commencement of the exhibition of liquor potassæ, the patient discontinued his attendance.

CASE 23.—*Sores—Pain in Micturition—cure.*

Mordecai Barnett, æt. 43, admitted O. P. April 20, 1833.

Two elevated sores on left side of penis, near scrotum. They appear to have been originally pustules. Has been for some time under treatment ineffectually.

℞. Pil. hyd. gr. v. omni nocte.

℞. Infus. ros. ē Mag. sulph. ʒj. o. n.

May 4. Sores healed—elevated cicatrices remain. Complains of much pain in the urethra after micturition. No urethral discharge.

℞. Emplast. canthar. penis.

12th. Still complains of much pain in the urethra, now felt, however, before micturition.

℞. Liquor. potass. ʒiss. Pot. nitrat. ʒss. Muc. acaciæ, ʒss. Tr. hyos. ʒiv. Aq. Oj. M. bibat. vicibus partitis quotidie.

P. ē pilulis.

Magnes. sulph. ʒss. o. m.

May 28th. Scarcely any vestige of sores. The pain in micturition, though relieved, continues. Mouth has been gently affected.

Omr. pil. —P. ē mist. et mag. sulph.

June 15th. Has lately had connexion with his wife after a long absence from her. Believes that she has no venereal complaint. A fresh pustule has appeared on the dorsum of the penis, with induration of its basis.

℞. Cataplasma panis. P.

18th Sore better.

℞. sal. ē mag. sul. t. d.

22d. Sore larger—yellowish on its surface—its base more hard and tumid. Looks pale.

℞. Dec. cinch. ē sod. carb. bis die.

Haust. senn. altern. mane.

29th. Sore spreading sloughily towards the pubes, and assuming the herpetic character.

℞. Dec. sars. c. Oss. Ext. ʒj. quotid.

P. ē h. senn.—Lot. nig. ē catap. pane.

July 6th. Sore has ceased to spread.

20th. Sore just healed. During the time occupied by the preceding reports, the pain in micturition has continued, with little alteration. There is and has been no urethral discharge whatever, nor has any alteration in the urethra or corpus spongiosum been perceptible. A bougie has been passed. It aggravated the pain.

℞. Cuc. cruent. perineo. ad ʒx.

26th. Pain nearly gone since the cupping. Sore healed.

After this the urethral pain quite disappeared. The patient attended as O. P. until the 17th of August, when he was finally dismissed, quite well. He has shown himself subsequently, and has had no return of his complaint.

These are all the cases of this affection which it is at present in my power to relate. It must be owned that the treatment is not satisfactory, which may perhaps be owing, in some degree, to our ignorance of the actual condition of the urethra. The plan that appears to promise most is moderate purging with mercurial alteratives, and local depletion or counter-irritation. Attention to the history of the local complaint, as well as to the actual condition of the patient—the state of his digestive organs—his occupation—diet, &c. may perhaps be useful in assisting the choice of remedies.

REMARKS ON SMALL-POX, VACCINATION, &c.

For the last ten years, the small pox has been threatening once more to assert its desolating supremacy over the greater part of Europe. In various parts of Germany it had broken out with alarming severity, previous to 1829; and in the summer of that year it appeared as an epidemic, short lived indeed, but sufficiently dreadful, in the town of Annaberg and its environs, in the kingdom of Saxony. Such an invasion had not been known there since the year 1800, at which time vaccination was first introduced and generally adopted.

Dr. Otto, who has written a very able and elaborate article on the subject, very justly remarks that it is with vaccination, as with most other objects of man's pursuit and attainment, when once he has reached unto, and enjoyed its benefits for some time, its importance becomes less and less valued, and a criminal negligence takes the place of a dutiful and an abiding gratitude. Many families had of late omitted to have their children vaccinated, and perhaps also not a few medical men had not diligently enough enforced the practice, or wisely provided in the performance of the operation for the security of their patients. We do not mean to deny that one year never passed, even when vaccination was most highly appreciated, and most judiciously practised, without some straggling cases of small pox being known; but we at the same time most firmly maintain that the two most potent causes of the recent epidemic have been, a certain, although unknown, favoring state of the atmosphere, and a greater and a more generally diffused susceptibility to the disease, in consequence of a deficient and a faulty vaccination. Medical men are still a good deal puzzled what to think of the varioloid disease; and no doubt its appearance within the last ten years has added considerably to the difficulty of arriving at perfectly accurate intelligence on the influence which Jenner's discovery has had on the annual mortality of those countries into which it has been introduced.

Not only those who had been vaccinated, as well as those who had not, but also in many cases persons who had been inoculated, or had passed through the natural small-pox, sickened and died of this new epidemic; still we ought not to forget the very important testimony of Doctors Bell and Mitchell, that its virulence and danger in America were most conspicuously

abated in by far the majority of the cases in which the patients have been previously vaccinated, whereas fully one half of those who had not been vaccinated and had not had the small pox, died of it. Truly a mighty service of vaccination! Some physicians, among whom was Moreau de Jonnes, of Paris, announced as their opinion, that the varioloid was a disease "*sui generis*," and that it did not afford any security against an attack of the true small-pox. He considered it as a probable importation from the East Indies.—(*Bullet. des Sciences Med. Dec. 1826.*)

Much confusion has arisen from not attending to the form and sort of the disease to which the term varioloid was affixed. Dr. Thomson, of Edinburgh, originally selected it to denote the mild and modified form of small-pox, which occurs in those who have been previously vaccinated; just in the same way as we use the words "*alcaloid*," "*syphiloid*," &c. to indicate as minor or less distinct species of alkalies and of syphilis. Tueffard, in his report of the Central Committee of Vaccination in France, for 1817, used the appellation "*Petite verole mitiguée*."

To this meaning the term ought to be restricted; but of late, both in England and in America, and also in Germany, (*Hörn's Archiv. 1828,*) physicians have made mention of wide spread varioloid epidemics; and even the recent invasion of small pox at Marseilles was by some reported as such!! It has been forgotten that spurious pocky epidemics were well known, long before the time of Jenner; see the writings of *Van Swieten, Heberden, Dimsdale, and Hufeland*. We shall there find that the true and spurious forms prevailed epidemically sometimes together; that both left pits and scars behind, but that neither of them afforded any security against an attack of the other. The spurious pox, we are told, runs its course more quickly, the pustules drying on the fourth or fifth day, and the body of the patient does not admit the peculiar small-pox smell. The two diseases are therefore essentially different. Dr. Otto has repeatedly witnessed cases which were mistaken by old and experienced practitioners for examples of genuine variola; and which he at once recognized as spurious, by their shorter duration, and by the absence of the characteristic smell. Two of these patients were seized with small-pox during the recent epidemic at Annaberg, and one of them died. We need not surely urge the great importance of an accurate discrimination. Without

it we can never hope to arrive at any safe conclusions. In addition to the two distinguishing signs, it is right to observe that, in cases of varioloid disease, even when severe, and when the pustules are confluent, the matter is never so completely formed; that it sooner becomes thick and dry; that the secondary fever is absent altogether, or is very indistinct, and that the pits and scars which remain are not nearly so deep nor so furrowed. As we might expect, there is a considerable difference in these respects, in different epidemics; and perhaps it is generally correct that the severity of the varioloid is in accordance with the malignancy of the co-existing small-pox epidemic. A very satisfactory proof that the varioloid (as previously defined) is only a modification of the true small-pox in consequence of the preceding vaccination, is afforded by the well established fact that we can inoculate from a varioloid pustule a person who has not been vaccinated, nor yet has passed through the natural disease, and a perfect specimen of genuine variola may follow. It remains for future observers to determine whether the varioloid disease, "as such and retaining all its characters," can propagate itself to and among those who never have been vaccinated.

The great practical question of the protecting influence of vaccination cannot be fairly disputed. The American and English writers have most forcibly illustrated its efficacy; and Roberts, in his account of the late small-pox epidemic at Marseilles, tells us, that 1473 unvaccinated died of the natural disease, and only 45 vaccinated of the varioloid: besides we are to remember that by far the greater number of the vaccinated wholly escaped the infection.

Krausse has calculated that, before Jenner's immortal discovery, 400,000 were annually immolated in Europe by the ruthless monster of variola; and although the number is still very large, and has, no doubt, of late been on the increase, we impute this, not so much to the inefficacy of the antidote proposed, as to the remissness in employing it. Governments ought to view vaccination as a matter of state policy, and to render its adoption exclusive and obligatory. Till then, we cannot hope to effect very much good; for ignorance, indolence, and prejudice are a trio of formidable obstacles. Some of the German states, and among the rest, Saxony, have issued their official mandates in favor of vaccination, but have hitherto omitted to provide for the remuneration of the medical men who

were expected to perform it. An adequate fund must be first established; and moreover no persons should be allowed to vaccinate, except regularly educated and scientific men, whose knowledge may enable them to detect all sources of error, and to correct and obviate them. One of these, which has hitherto not been sufficiently attended to, is the existence of any morbid state, whether of an acute or a chronic nature, at the time of vaccination. From a very long and extensive practice, I am quite satisfied that the agency of the cow-pox virus may be counteracted, not only by fevers and other pyrexial diseases, but also by a cachectic, scrofulous, or even by a very nervous and irritable state of body. The period of dentition is likewise unfavorable to its success. The vesicle will be found to be imperfectly developed, the crust to fall off more quickly than it ought to do, and the scar left to be neither deep nor indented enough. The age of the child ought also to be well considered: the first three or four months of infant life are occupied in the consolidation of its tender frame, and we therefore observe that during that period it is very rarely affected by any epidemic or contagious disease. The best writers, as John, Barron, Billiard, &c. have all noticed the little susceptibility of infants to be affected by any of the acute exanthemata. Dr. Otto has never seen any child under four months of age have measles, or scarlatina; and during the late pocky epidemic, in 1829, none so young were seized with it.

The observations of Dr. Percival of Manchester, and of Dr. Roberts of Marseilles nearly coincide with the observation of Dr. Otto, as the following tables of two epidemics will show.

Patients under three months.....	4
—— from three to six months.....	17
—— from six to twelve months.....	119
—— from one to two years.....	216
—— from two to three years.....	110
—— from three to four years.....	59
	<hr/> 525

And again—

Patients under three months.....	27
—— from three to six months.....	38
—— from six to twelve months.....	144
—— from one to two years.....	200
—— from two to three years.....	185
—— from three to four years.....	190
	<hr/> 784

The occasional occurrence of small-pox during foetal life, and also from the birth is a curious fact, but it does not at all invalidate our position that infants are very little susceptible of the infection.

The alarms occasioned by the recent increase of small-pox, and the consequent discredit which has to a considerable degree been thrown upon vaccination, has induced several practitioners to recommend the operation to be repeated after the lapse of a certain number of years, not only with the view of additionally fortifying the constitution against the variolous poison, but also at the same time of testing the sufficiency of the first vaccination. It has been supposed that a tolerably correct opinion might be formed by examining the scar on the arm; but this has been found to be wholly erroneous. Dr. Otto has repeatedly had cases of severe and even fatal small-pox in those whose arms presented a most distinct and well marked cicatrix, while others in whom the traces were little obvious, have wholly escaped. As to the question, whether the protecting influence of the cow-pox remains only for a period of years, and not for the life of the individual, and whether it requires therefore an occasional renewal, we cannot, in the present state of our knowledge, accurately determine. It seems more probable that the influence of the unfavorable agents, which we have previously alluded to, namely, unfitness of age, existing diseases, or a diseased constitution, dentition, and so forth, operating at the time of the vaccination, may have thwarted the full efficacy of the antidote.

We must therefore satisfy ourselves with carefully collecting and comparing facts; and with this view we shall now lay before the reader the results of 189 "re-vaccinations" performed in the year 1829.

In 76 cases, papulae, or inflamed elevated points only and without any appearance of a pustule or of a vesicle, were induced. Although there was no obvious exudation, a small crust was formed on the top of these; it fell off on the 6th or 7th day, and left no scar, nor any trace behind. In these cases, I consider that the influence of the original vaccination was in full force, and not at all impaired.

In eighty-three cases vesicles were formed; these were usually filled with a turbid thick matter, on or about the fifth day; on the seventh or eighth day they had become dry, and on the

tenth the scab fell off, leaving a very imperfect mark. Such an eruption bears a considerable resemblance to vacilla, and as I regarded it as a false or spurious cow-pox, I shall call it "vaccinella."

In nine of the cases papular elevations appeared about the third day; and like regular vaccine vesicles, were gradually filled with a serum, but dried and passed away more quickly, and without the formation of any purulent matter. More or less feverish disturbance accompanied their progress. On the falling off of the brown-colored scab on the tenth or eleventh day, a superficial scar on a red ground remained. This eruption may therefore be viewed as a modified cow-pox, and as probably indicating the disposition of the individual to the varioloid disease.

In sixteen cases, perfect, and in all respects regular and well-formed cow-pox vesicles were formed, and were followed by the true pitted scar. In five other cases the vesicles were nearly as satisfactory. The conclusions which may legitimately be drawn from the foregoing statements are, that out of the one hundred and eighty-nine persons who underwent vaccination a second time, seventy-six may be considered as retaining completely, and in a full degree, the protecting influence of the cow-pox; eighty-three in a high degree, nine in a doubtful and uncertain degree, and twenty-one as having lost it altogether. Of these twenty-one ten who had been all vaccinated in infancy, were between ten and fifteen years of age; seven between fifteen and twenty; and four between twenty and twenty-seven years. Some of these had been vaccinated at different periods of their youth, in their first, second, or third years. Hence it appears, that the smallest number is actually of those in whom the first vaccination was least recent. How shall we explain this? Is it owing to a better mode of vaccination, or a more efficient virus then employed? or is it to be attributed to a diminished susceptibility to the variolous diseases, as we advance in years? As we before stated, the appearance of the old scar is quite fallacious, since it was well-marked in some of these twenty-one cases, and it was very indistinct in many of those who resisted the effects of re-vaccination.

Numerous cases of small-pox which occurred during the late epidemic at Annaberg, are detailed by Dr. Otto, but we deem it unnecessary to transcribe any of them.—*Hufeland's Journal, March.*

ON THE INFLUENZA AT BERLIN.

Dr. Hufeland, in the March number of his *Journal*, alludes to the then prevailing epidemic influenza, or grippa; which subsequently, as all our home readers well know, extended itself to this country, and spread like a broad sheet over almost every hole and corner of it. The venerable German tells us that, since the year 1782, no epidemic has been known to seize so many persons; in many places, more than one half the inhabitants were affected with it. Both arose in Russia, and followed a southwesterly direction; both made a sudden invasion on a vast number of people in a place at the same time; both were of short duration, and were comparatively little dangerous; both affected chiefly the mucous membranes and nervous system; and in both bloodletting and depletory measures were hurtful. In Petersburg, there were at least 100,000 invalids; in Memel, whose population does not exceed ten thousand, there were eight thousand; and in Berlin, at the date of Hufeland's writing, upwards of fifty thousand had been seized. It may be considered as a catarrhal fever, accompanied with, and followed by, extraordinary depression of the nervous energy for several weeks after the pyrexia has ceased. Mild antiphlogistic treatment and gentle diaphoretics have, in most cases, been sufficient to cure it, even in this "blood-thirsty age" of ours.

A correspondent from Königsberg adds a few interesting remarks on the epidemic, as witnessed by him there. The winter had been unusually healthy up to the end of the first or the beginning of the second week in March. The writer, as well as some other physicians, had, indeed remarked that there had been, for some time previous, a tendency in most febrile complaints to a nervous or adynamic type; and this is quite in accordance with the history of other epidemics, as, for example, of the cholera: the influence of the stormy cloud is felt, before it breaks in its full sweeping force. The symptoms were at first smart pyrexia, with very severe headache, sneezing, sore throat, and violent cough, which was generally dry and harsh, at least, in the beginning; the skin moist, and the tongue white. The feelings of general pain, weakness, and great depression of nervous power, were very remarkable. The fever generally abated in three or four days, but the patients were long of recovering their strength. The mortality occasioned by the disease was very trifling, if we consider the number of patients, and occurred

chiefly among children, in whom bronchitis was developed. Almost every one in Königsberg was affected with it, in a greater or less degree; some, indeed, very mildly, but still they had catarrhal symptoms. During its prevalence, other diseases were arrested, and seemed to slumber for the time; the sick lists presented nothing but influenza—influenza!! Commerce was frequently suspended, and churches had no clergymen to officiate in them. In the course of the second week, the disease became less severe; in some, the fever was absent—in others the headache, or the sore throat, or the cough, and so forth; but such patients were often much longer indisposed than those who had sustained a smarter attack during the first week; whether this arose from their taking less care of themselves, or whether the "potentia nociva" required a certain time for its maturation in, and expulsion from, the system, we cannot say. In the third week, the number of cases was very much diminished, and so disarmed now was the disease of its violence, as to receive the appellation of "grippine," a diminutive of "grippe;" in the fourth week, scarcely any new cases were seen. The mortality may be estimated by the following table:—We should premise that the average weekly mortality at Königsberg is from forty to fifty in summer, and from fifty to sixty in winter.

Deaths from 8th to 15th March.....	43
—from 15th to 22d	72
—from 22d to 29th	105

The last is a greater number than has been known for many years, except when the cholera was raging. During the epidemic influenza of 1831, the highest number of deaths in a week was 96.—*Hufeland's Journal*.

VARIOLA AND VARIOLOID.

In a late report of the clinique of La Pitie Hospital, we observe that several severe cases of natural small-pox are detailed. They occurred in unvaccinated persons, and were fatal in two. In one of these a copious eruption was found on dissection, over the engorged lining membrane of the air-passages, and several ounces of a thickish purulent matter flowed from them; the patient died asphyxiated; the right lung presented here and there patches of hepatisation. In the other case, a disseminated suppuration in the pulmonary parenchyma was found after death, which had taken place on the 28th day of the disease.

Two cases of the varioloid were admitted;

in one, a female, aged 22, who had been vaccinated when young, but in whom the scars on the arm were no longer visible, the disease ran its course in eight days; in the other, a man aged 28, and never vaccinated, the eruption appeared on the third day, and terminated favorably in a week. What is interesting is, that this patient seemed to have caught the disease while tending a younger brother sick of the regular small-pox; and yet we cannot hesitate to pronounce his own attack as one of the varioloid, when we consider its duration and progress. At the Beaujon hospital we lately took notice of a patient who was affected with varioloid, and yet gave distinct and well marked small-pox to several others in the same ward.

Archives Générales.

PARAPLEGIA IN A YOUNG FEMALE, CURED BY NUX VOMICA.

A girl, aged 20, was admitted into La Pitié on the 13th January, for a paraplegic weakness of the lower extremities; she had ready command over the muscles; but their energies were so feeble, that she could not walk, nor even stand erect, but for a few minutes; the toes were in a constant state of extension, and upon any attempt to advance, the thighs bended upon the pelvis, the gait became unsteady and tottering, the feet crossed and became entwined with each other, and she would fall on the ground if not supported. This loss of power was most marked towards evening, and also during the periods of menstruation. The sensibility of the limbs was unaffected, and her constitution sound in other respects. The disease had commenced in her 11th year.

The alcoholic extract of nux vomica was administered daily in an enema; the dose at first was two grains, and gradually raised to five. On the fourth day, the power over the limbs was somewhat greater, and the catamenia were induced. Latterly the strychnine was given by the mouth in the form of pills in doses of one-eighth, one-fourth, one-half, and two-thirds of a grain. In two months and a half she was discharged cured.—*Archives Générales*

RHINOPLASTIC OPERATION.

A young man consulted M. Dupuytren, some time ago, respecting an eating ulcer which had

already destroyed a considerable portion of the point and septum of the nose. Under mild treatment the sore was healed; but a disgusting deformity remained in consequence of the loss of substance.

M. D. resolved to attempt its restoration; and in this case he cut the flap from the upper lip, which was unusually thick and long. Having accurately marked out the dimensions required, an incision was made through one half of the thickness of the lip, and the flap was then dissected or sliced off, the inner surface or face of the lip being left uninjured. The flap was now "retourné" by twisting its pedicle from right to left, and secured to the raw edges of the nose by hair-lip pins, and the twisted suture. Small plugs of lint introduced beneath served to support it. The wound in the lip was then brought and kept together by the same sort of suture. On the 6th day the pins were removed from the lip, and on the 9th from the nose. The flap had united to the septum and point of the nose.

The new appendage was not however very handsome, for the neck, or pedicle of the flap, where it had been twisted round, formed a disagreeable protuberance, and the patient was anxious to be relieved of this annoyance. The Baron would not consent to do any thing, as he expected that it might become smaller and smaller in course of time. Upwards of a year having elapsed, and the deformity being little changed, it was deemed advisable to accede to the patient's wishes: the pedicle was divided, and all the irregularities pared carefully away. The cure ultimately was a most satisfactory one.—*Journ. Hebdomad.*

ON THE DIFFERENT SORTS OF GOITRE.

Dr. Sacchi, the chief surgeon of the hospital at Treviglio, has written a very able memoir on this subject, in the December Number of the *Annali Universali*, from which we shall make a few extracts.

The first form or species is that wherein the gland is simply enlarged in volume, but not changed in structure; it has been called by some the fleshy goitre; Dr. S. prefers the term of hypertrophy of the thyroid gland. It is common in young girls and in women—has a regular even surface, a uniform resistance, and seldom presents any distinct divisions or lobes.

It may be often cured by medical treatment. If not dispersed, the gland becomes in time va-

riously altered; these alterations may be reduced to two leading forms; in the one, the goitre assumes a scrofulous character; in the other, an encysted, or, as it has been called, a lymphatic character. The scrofulous goitre attains often an immense size, but does not give rise to corresponding inconvenience or danger—it is generally lobulated. Now, in course of time, one or more of these lobes may become soft, and give to the finger the feeling of fluctuation; this constitutes the soft, hydatidic, serous, or lymphatic goitre of authors; the structure has become vesicular, and the contained fluid is sometimes watery, at other times mucous or albuminous, like the white of an egg. In a few cases, it is more like milk or pus, or different cells may contain different sorts of fluid. It must, however, be well remembered that some goitres, which have a most distinct fluctuation, yet contain no fluid; the structure of the gland has degenerated into a mass like that of the placenta, or of a wet sponge.

This variety of goitre is remarkably smooth, uniform, and elastic to the touch. Some goitres undergo a partial ramolissement; for it is quite a mistake to suppose that they always become harder and harder, the longer they exist. From what has been stated, it may justly be concluded that hypertrophy, scrofulous change, and lymphatic degeneration, should be considered as three progressive stages of the same disease; and it is not unfrequent to find different parts of the gland simultaneously affected with these three diseased conditions.

It has been a subject of dispute, whether the thyroid gland is ever primarily affected with true scirrhus. Scarpia said *not*; and maintained that the disease was always consecutive to cancer or scirrhus of the tongue, œsophagus, parotid, or submaxillary gland, &c.

Dr. Sacchi has, however, narrated a case in confirmation of the opposite opinion; and the dissection of the tumour must preclude any attempt to gainsay its nature. An example of genuine fungus hæmatodes is also detailed.

One of the most curious alterations of the thyroid gland is that which has been called the aneurysmatic goitre; it is formed by an abnormal or excessive development of the thyroid arteries, and of their branches; the former sometimes acquire the size of one of the carotids. On examining the tumour during life, it is found to have strong pulsations at every point; but the pulsations do not resemble those of an aneurism;

they convey to the hand rather a sensation of the blood flowing along very rapidly into numerous vessels, and are accompanied with a sound like an obscure buzzing, or tremulous murmur of the whole surface; but this is more distinct and strong over the site of the thyroid trunks. In two cases, given by our author, the tumors had existed for a number of years, and both had been originally brought on by the efforts of the women during their accouchments.

In addition to the preceding forms of goitre, we may state that the thyroid is occasionally the seat of tuberculous and melanotic depositions, and of hydatidic, atheromatous, cartilaginous, bony, and even of chalky formations. Now all these, as well as the preceding tumors, are included in the general appellation of goitre. Dr. S. adheres to the old opinion that this disease is very frequently, perhaps most commonly, induced by the prolonged use of unwholesome calcareous waters. In proof of this, he alludes to the sanative results of changing the residence of the patients. This, he says, is by far the most important of all remedial means. Iodine is useful chiefly in the hypertrophic and scrofulous forms; less so in the lymphatic; and is quite inefficacious against the small isolated and hard goitres. The best mode of using it is by friction, with an ointment of hydriodate of potass, to be continued for one, or for several months.—*Annali Universali*.

ACADEMY OF SCIENCES.

CROUP.

Dr. Maingault read a memoir on the “Urgency of performing Tracheotomy in Croup.” The conclusions which he has drawn from his extended researches are the following:

1. That the operation should be performed without delay, when the antiphlogistic and other remedies have failed or promise little benefit.

2. That the success of the operation is much dependent upon the extent of the inflammation; when it is confined to the larynx, our prognosis may be more favorable.

3. That the opening into the trachea should be made very cautiously, and by repeated strokes with the scalpel, “a plusieurs reprises,” because the sudden rushing in of the air through a large aperture may cause asphyxia; and also the ready admission of blood into the windpipe is obviated considerably.

4. That the insufflation of any powder, or the

introduction of any liquid through the wound into the trachea, ought to be denounced.

MEDICAL ELECTRICITY.

The attention of the Academy has been called, of late, to the great improvements which M. Molt has introduced into this department of therapeutics. M. M. Alibert, Dubois, and Desgenettes were appointed to inspect his establishment, and they have made a most favorable report. The following is a list of the electrical instruments which are proved to be the most useful.

1. The electric brush, which imparts an electric current of great activity, without either spark or shocks.

2. Electric sounds are bougies; for the purpose of being introduced into the urethra and vagina, in paralytic affections of the bladder—in amenorrhœa, &c.

3. A compressing pump, to inject electrified water. The electric fluid is conveyed by means of a current of common or of mineral water; its advantages have been experienced in amenorrhœa.

4. An electrical projector, to communicate the electric fluid under the form of a crackling cool breeze. Cases of amaurosis, and some forms of neuralgia, have been benefited by the use of this instrument.

About two months ago an intelligent gentleman of this city called on us, and exhibited a galvanic combination for introduction into the rectum in cases of constipation. We are not at liberty for the present to give the details, as a patent has been applied for; nor can we say whether the application is the same as M. Molts, or whether it answers the desired object.—*Editor.*

HELMINTHOLOGY.

The histories of several cases of the larvæ of the æstrus, or gad-fly, having been found in the human subject, were presented to the Academy, and submitted to the review of M. Geoffroy St. Hilaire. In the first case, observed by M. Roulin at Maraquita, in Colombia, there was a tumour of the size of a large chestnut on the scrotum; the apex was very red, and presented a small opening; this having been enlarged by an incision, gave issue to a whitish pyriform larva, about ten lines long, and five or six broad at the largest part. The author states that this larva was quite similar to those very frequently

found under the skin of the cattle of the country. In a jaguar which he killed on the Cordilleras, he found a great number of living larvæ of the æstrus, under the skin of the flanks. In the case detailed by M. Guérin, the larvæ were contained in the pustules scattered over the body of a negro, who lay sick of variola at the island of Martinique; the length of these larvæ was about fifteen millimetres, and the breadth about two. They were of a white color, indistinctly articulated, and provided with a mouth and anus, easily recognizable with a magnifying glass. M. St. Hilaire very properly says that it is much to be regretted, that in none of the instances were the larvæ watched till the period of their transformation; but perhaps we cannot well expect so great a degree of resolution in a patient, as voluntarily to submit to procrastinated pain, which he knows may be easily and effectually got rid of, the extraction of the larvæ being abundantly simple.

ABNORMAL CAVITY IN THE HEART.

M. Cullerier exhibited the heart of a woman, who had died of phthisis, in which there was a cavity in the interventricular septum.

No symptoms during life had led the physician to anticipate any abnormal state of the organs.

TRAUMATIC TETANUS.

M. Le Pelletier communicated the details of an interesting case of fatal tetanus supervening on amputation of the leg; the patient died on the eighth day after the operation. On dissection the sciatic nerve was found vehemently red and injected with blood, from the wound up as far as the pelvis.

M. L. regards this inflammation of the neurilemma as the exciting cause and local origin of the tetanus.

PUBLIC SEANCE OF THE 9th JULY.

The Academy met in their hall to announce the prize-subjects for the year 1834 and 1835, and to hear three orations by M. M. Marc, Reveill  -Parise, and Pariset.

The President of the Academy, M. Marc, treated of monomania in its relations with legal medicine and jurisprudence. He forcibly illustrated the existence and characters of this Protean mental malady, and in opposition to many learned lawyers and magistrates, endeavored to prove that not a few transgressions and crimes

are the result of a morbid state of the body, and are not in truth the offspring of a mind capable of deliberation.

The second oration was upon that very just saying of Aristotle, "that most men of genius are affected with melancholy." M. R. ingeniously attempted to show that the very existence of genius is attributable to an exalted activity and susceptibility of the nervous system, whether this be original or acquired; and that at the same time the very excess of these functions disposes individuals to the disappointment and mental chagrin, which in truth constitutes melancholy.

The concluding oration was delivered by the Secretary, and was well worthy of the noble theme, an eulogium on the late Baron Cuvier

CHOLERA MORBUS.

M. Kerandren read a letter from Mr Guibert, the surgeon of the frigate *Melpomene*, which has been recently on the Lisbon station. This ship was lying in the Tagus for three months, with a fine healthy crew, exempt from cholera, although the disease was rife on shore. On the 30th June, the pestilence broke out on board most unexpectedly and with great violence. Many of the sailors died in the course of a few hours. The sick were sent to the hospital on shore (an imprudent step) and the ship went to sea on the 3d of July, but the disease travelled as quickly as she did, and for three or four days attacked a number of the crew. In most of the severe cases there were no premonitory symptoms: the poor fellows being as it were stricken at once with death.

DIPHTHERITE, OR ANGINA MEMBRANACEA.

M. Gendron regards diphtherite and croup as the same disease, only occupying different parts; in the one case the cavity of the mouth and fauces are chiefly affected, in the other, the larynx and trachea. In both the character of the inflammation is the same, and there is the same disposition to the deposit of the false membranes. The first stage of the diphtherite demands active depletions; in the second stage, however, when well-formed concretions begin to appear in the throat, our hopes of success must rest chiefly on the application of caustics to the diseased surface. The author prefers for this purpose the nitrate of silver, which may be used either in the solid or fluid form. Some practitioners recom-

mend highly the use of the mineral acids, especially the muriatic.—*Medico and Chirurgical Review.*

DIVISION OF THE SYMPHYSIS PUBIS.

M. Baudeloque has lately performed this operation with perfect success, both to mother and child.

In our opinion, a most unnecessary operation. Our readers will probably recollect that Alphonse Le Roy, who first performed this operation, had his patient likewise exhibited to the Academy, and obtained considerable reputation for the performance of the operation. This, however, he afterwards lost, as it was discovered some years afterwards that the same female had been delivered of several children without any division of the symphysis pubis. The same will, in all probability happen to Mr. Baudeloque's patient. In our opinion no appreciable increase of the diameter of the pelvis can be obtained by a division of the symphysis, and the operation must therefore be not only useless but hurtful.—*Editor.*

INOCULATION OF SYPHILIS.

M. Ricord, as is very generally known, has been lately engaged in a course of experiments to ascertain the effect of inoculating with the matter of primary diseased secretions, as from chancres, buboes, and gonorrhœa; and also with the matter of secondary ulcers, as those on the tonsils, on the skin, and so forth.

The result of these trials confirms the old opinion, that the one set of discharges is contagious, and the other is not.

It is right to observe that the experiments were performed on the individuals themselves, who furnished the matter for inoculation. When the inoculation did succeed, a papula was first formed; this gradually became pustular, and in the course of a few days a scab or crust occupied the summit of each. Upon this falling off, an ulcer, having all the characters of a true chancre, was discovered.

When the virus of a gonorrhœa gave rise to these phenomena, M. Ricord is of opinion that there were cotemporaneous chancres, and that it was, in reality, the discharge from them, and not the running from the uninjured mucous membrane, that was at fault.

CLINICAL LECTURE OF M. DUPUYTREN ON FISSURE OF THE ANUS.

[Lecons Orales. Tome troisième.]
Fissure of the anus, though not commonly a

dangerous, is an extremely painful affection. The patient usually complains of excessive torture, comparing it to the sensation produced by a red-hot iron introduced into the rectum. The expulsion of the fæces is productive of so much suffering, that he will even abstain from food to avoid it.

Fissure of the Anus consists in a long superficial ulceration, developed near the margin of the anus, in the radiated folds of the mucous membrane. On separating the sides of the anus, and making the patient force down, a narrow chink is perceived; its surface red, its edges tumid and callous. The introduction of the finger is often necessary to ascertain the extent to which it passes. It is situated more frequently on the lateral or posterior, than on the anterior face of the anus, and seldom attacks its whole circumference.

The severity of the affection depends on the spasmodic contraction of the sphincter, which occurs on the contact of the smallest foreign body.

The causes of the complaint are numerous. Constipation—the passage of hardened fæces, distending the gut and lacerating the mucous membrane--the clumsy exhibition of lavements, especially when metallic pipes are employed --hæmorrhoidal complaints--the venereal virus.

The inefficacy of local applications has led to the employment of two measures, and of them almost alone--division of the sphincter, and cauterization with the nitrate of silver. Both are so painful, though generally successful, that a less severe method is a desideratum. M. Dupuytren has employed one, which, although not constantly effectual, is sufficiently fortunate to make it worthy of trial, prior to the resorting to an operation.

Spasmodic contraction of the sphincter is the essence of the malady; the ulceration is only a secondary phenomenon. The object of M. Dupuytren's treatment is to moderate this spasm; which he does, by the introduction within the anus of the extract of belladonna. The composition of the ointment he employs is as follows:--

R. Axungia..... ps. vi.

Extracti belladonnæ.

Plumb. acet..... āā pm. j.

M.

A tent, of a moderate size, is smeared with this, and passed into the rectum. The size of the tent is gradually increased. The constant employment of the ointment for some days frequently occasions complete relief.

We give the following ease.

Case 1. A young woman was admitted into the Hôtel Dieu. She had been confined four months previously, and had experienced, for some weeks, severe pains in the anus, aggravated each time she went to stool, especially if the fæces were bulky and hard. At the commencement of the complaint, the paroxysms of pain had only lasted for a few minutes, but they became more and more prolonged, and at the period of her admission would continue for several hours.

On examining the anus, and drawing out the lower extremity of the gut, a very superficial fissure was discovered. The contraction of the sphincter was such that the little finger could with difficulty be introduced, and it occasioned much suffering. The ointment above stated was smeared on a tent of lint and passed into the gut several times daily. In fifteen days the patient was completely cured.

Ulcerated fissures are met with in three situations, below the sphincter, above it, and within its embrace.

Those below the sphincter occupy only the cutaneous teeture, and do not involve the mucous; they occasion more or less pruritus, but produce no pain in defæcation, nor contraction of the sphincter; they are, therefore, not very painful. Most commonly they are produced by the venereal virus.* Those seated above the sphincter affect the mucous membrane, and require the speculum to disclose them. On passing the finger into the gut, there is felt in the situation of the fissures a hard knotted cord, pressure on which occasioned acute pain. They occasion tenesmus on going to stool, relieved after its excretion. The fæces are smeared with puriform mucus, and with blood on the side of the fissures. They are commonly due to the ulceration of internal hæmorrhoids, occasioned by the passage of hardened fæcal matters. Those fissures situated within the sphincter are the most severe affection of the whole, and are accompanied with the spasmodic contraction of the sphincter.

Fissures of the first and second description are usually cured without an operation, by the application of ointments, injections, &c. But in the last mentioned kind of fissure the most speedy and most effectual treatment consists in the operation first recommended by Mr. Boyer.

* Those depending on the venereal virus, usually extending from the perinæum to the verge of the anus, and frequently attended with excrecences of the cutis, which indeed are their seat, are generally curable without difficulty by the application of black-wash in the first instance, followed after a day or two by the oxymuriate lotion, in the proportion of half a grain to the ounce of water.—*Ed.*

REGISTER AND LIBRARY

OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARPE PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, APRIL 2, 1834.

No. 18.

IN our prospectus we announced that the "Register and Library of Medical and Chirurgical Science," would be published every Wednesday, and that eight or twelve pages of each number would be devoted to a periscopic review of what was taking place in medical science at home and abroad. It is with regret we acknowledge that irregularities have occurred in the weekly issue of the Journal, and that several numbers have been circulated, the pages of which have been entirely occupied with the Library department of the work. We owe our readers an explanation of the causes which have obliged the publisher to deviate from the plan of publication which had been announced, and as we have now adopted such arrangements as shall enable us to fulfil all we have promised in our future numbers, we have pleasure in bringing the subject under their consideration.

No person who is not conversant with details of publication, can estimate the difficulties attending the establishment of a weekly Journal. In the most extensive printing offices; it requires time and the most attentive personal exertion so to systematize such a work as to secure its regular circulation. The publication of the "Register and Library," was commenced immediately before the opening of the session of lectures—at a time when our professional engagements were most numerous and laborious, and although we took care by extra labor to furnish copy, the difficulties of transmitting this, and of revising proofs, &c. &c., during the winter session, were such as occasionally to prevent the Journal from being regularly published, and when this occurred the whole of the hands engaged in this publication were necessarily employed in other business, and consequently the regular system of operations interfered with. Again, in several instances

parcels containing large quantities of copy miscarried; and the publisher, disappointed in receiving them, was obliged to issue several numbers without the periscope.

The experience of the last few months has convinced us, that the following arrangements were necessary to ensure that punctuality which we consider as essential to give the Journal that interest of which it is susceptible.

1st. The appointment of an assistant editor to reside at Washington city, who shall personally superintend the publication of the Journal.

2d. The establishment of a *private mail* to secure regularity in the transmission of copy. Satisfied of the necessity of such arrangements, we left Philadelphia for Washington the day after the conclusion of our lectures, for the purpose of carrying them into effect, and we are happy to be enabled to say, that we have entirely succeeded in the accomplishment of our wishes, and we think we can now, with confidence, promise our subscribers that in future the Journal will be published regularly every Wednesday, and that each number shall contain a periscopic review of medical science.

Dr. James Hagan, the gentleman whom we have associated with us in the editorship, is eminently qualified for the discharge of the duties entrusted to him. He is a scholar and an accomplished physician, and his habits of application are such as to ensure that attention to the details of publication, which are essential in the management of a periodical work. With his assistance, and our own continued exertions, we have no doubt that we shall be enabled to render the "Register and Library of Medical and Chirurgical Science," deserving of the patronage and support of the profession in the United States. For the manner in which it has already

been patronized, we have every reason to feel satisfied. By its own intrinsic value, with little effort on the part of agents, it has acquired a very extended circulation in a few months. The expenses, however, attendant on the publication are very great, and we feel it due to the spirited publisher to state that, in our experience as an author, we have never met with a gentleman more liberal in his expenditure to render a work worthy of its patrons. Indeed, every wish we have expressed in regard to the work has been at once complied with, without any regard to the expense which it might incur.

The work of M. Velpeau on surgery, which is now in preparation, will cost for its translation, and for the execution of the engravings, above one thousand dollars. Yet this work was at once undertaken on our suggestion, although there were a number of interesting works on hand, which could have been put to press without incurring any expense.

We advert to the liberality of the publisher, merely for the purpose of pressing on the friends of the "Register, &c. &c." the necessity of a large subscription to remunerate him. Every physician possesses considerable influence in his particular neighborhood, and if those who patronize the "Register," &c., would only employ this to promote the circulation of the Journal, their exertions would be attended with the happiest results.

CASE OF LOCAL PALSY CURED BY THE TOURNIQUET.

Case of local Palsy cured by the Tourniquet, by S. Colhoun, professor of Materia Medica, in Jefferson College, Philadelphia.

Two persons affected with palsy of some of the muscles of the leg, were treated by Dr. Colhoun, when physician to the Penna. Hospital. Pressure so as to arrest the flow of blood through the limb, and the sudden restoration of the circulation, were the means used in these cases. The excitement, on the return of the blood to the limb, was considerable, and the effects most salutary on the palsied muscles; they were both cured. Another case occurred in the summer of 1833. George Parsons, aged 43, was taken in the morning with numbness, coldness, and loss of muscular powers in a part of the left hand, extending up to the wrist. He had been cleaning a sword with emery the day before; the thumb, index, and middle fingers of the hand, in which

the loss of motion principally appeared, were strongly pressed against the sword in rubbing it.

The hand appeared to be in every respect in the natural state, excepting in the symptoms of palsy.

The tourniquet was applied to the arm so as completely to suppress the circulation: the arm at first felt numb, then a slight perspiration broke out; a partial return of motion took place; the whole arm becoming tight and swelled with some numbness at the end of the fingers. The tourniquet gave him great pain in about ten minutes, when it was removed.

It was applied three times, and during the third time the motion was almost completely restored.

On removing the tourniquet, the arm became red, warm, and the motion was at every time more complete: after the last application, only a slight numbness remained at the end of the fingers. Since then he has had the full use of his hand.

Philadelphia, Sept. 1st, 1833.

FISSURE OF THE ANUS, CURED WITHOUT AN OPERATION.

M. Gossement, of Arcis sur Aube, has proposed the following expedient to prevent the contact of the faeces upon the surface of the fissure of the rectum, and thus to cure, in seven or eight days, this painful malady.

The patient must pinch moderately between his two fingers a portion of skin equivalent to about a sixth of the circumference of the anus, and including in the portion thus pressed the fissure; he then must bear down; the anus protrudes; the part between the fingers does not dilate, and affords a point of support which does not interfere with the fissure. It is with ease, and at the first suggestion put into practice by the patient. The application of lunar caustic upon the fissure several times expedites the cure. (Gaz. des Hopitaux, No. 115.)

A case of hydrophobia occurring after a year is related in this number.—*Ibid.*

AN AFFECTION OF THE HEART WITH A CONTRACTION OF THE AURICULO VENTRICULAR OPENING.

This case was distinguished by a gangrenous appearance of all the projecting points of the body, as the nose, ears, hands, feet, &c., it was relieved considerably by bleeding.

The disease was preceded by a fever, which lasted three months: the pulse and beating of the heart were nearly natural. Paleness of the whole surface first occurred; it was succeeded by a dark gangrenous color of the projecting points of the surface; with a great diminution of the life of these parts, of nutrition and sensibility, though their arteries were neither obliterated nor ossified. The fingers had become slender from their bases to their summits; the symptoms were always worse. Mr. Dupuytren remarked, during summer, in these cases slight suppurations appeared round the nails; he could not shut his hand; the soles of his feet were so tender that he could not walk upon them; at last he was confined to bed; the circulation diminished; and heaviness, redness without heat, dryness, with a wrinkled state of the feet were the evidence of it. Bleeding was practised; the pulse fell from 45 to 40; some pectoral symptoms, as pain and oppression (bruit de rape), for which V. S. was prescribed, disappeared. The symptoms of the gangrene were lessened. This treatment in these cases, Mr. Dupuytren stated, succeeds better if practised from the beginning; and, as a general mode, is more happy in its results than the old plan by bitters, astringents, &c. Diuretics combined with V. S. removed the suffocation and pain; the hands and feet regained their heat; the perspiration returned, and his condition became every way more supportable. (Dupuytren.)

A similar case is related by M. Girard in 1803. A slight dilatation of the point of the left ventricle of the heart produced in this instance, as appeared by dissection, pains in the feet and hands, which were followed by gangrene: narcotics did not relieve them; amputation only changed their seat; the disease advanced, the patient being continually affected with great pain until his death. (Gaz. des Hopitaux, No. 116.)

Iodine in the Cure of Hydrocele.—M. Ricord has made some interesting observations on iodine employed with the view of resolution. Old tumors of the periosteum disappeared rapidly, and the sooner in proportion to the evidences of suppuration. Voluminous cysts were taken up under its use in a few days. In no case did a relapse occur.

In hydrocele, M. Ricord found it to succeed slowly; it however does succeed, and though slow, he thinks that it may be a good substitute for the operation, which, from the escape of the injection into the cellular membrane, sometimes

is attended with sloughing of the whole scrotum. Two of the cases were cured in a month. The tincture was applied to the surface of the testicle twice a day; three drs. of it being mixed with four oz. of distilled water. (Gaz. des Hopitaux, No. 117.)

A case is related by M. Nauche, in which an alloy, composed of two different metals, was introduced into a passage in the palate, with the intention of preventing the passage of the food into the nose. It caused, as was supposed by its galvanic action, a constant metallic taste. It was replaced by one composed of a single metal: no metallic taste being then perceived, the defect of the first was referred to the agency of galvanism. Gold and platina were the metals first used. To avoid the metallic taste the instrument was made of platinum alone. (Gaz. des Hopitaux, No. 119.)

Vaccination.—The vaccine disease has been communicated in France to the Cow. The matter thus produced afterwards gave the disease to a person into whose arm it was inserted. The experiment failed in other trials. In the United States it has succeeded. (Acad. de Med. 1833.)

Hydrophobia.—M. Buisson proposes, as a remedy for hydrophobia, the use of the Russian vapor baths; covering up the patient with warm clothing so as to excite excessive sweats; using at the same time diluent drinks. M. Buisson sent a paper on this subject to the Academy of Sciences in 1825, mentioning a successful case, which was his own. He is so confident of the value of his plan, that he proposes to inoculate himself with the poison of hydrophobia. As a proof of its success he relates the following fact: "Many persons were bitten by a mad dog; they all died: M. Buisson, who was also bitten, feeling the first symptoms of the disease, danced night and day, saying that he wished to die gaily. He got well." (Gaz. des Hopitaux, No. 123.)

ROYAL ACADEMY OF SCIENCES.

SITTING OF THE 6TH MAY.

Galvanism applied to medicine.—M. Fabre Palaprat has succeeded, as he believes, in passing through the body by galvanism certain medicinal substances: he places on one arm a compass wet with a solution of hydriodate of potash, in distilled water; and upon the other arm a plaster of starch: the salt and the starch are submitted to the action of a galvanic pile: the

starch becomes blue, the effect of the passage of the iodine through the body, and its union with that substance. That it passes through the body, the author thinks he has proved by covering the skin, made dry with varnish of gum lac: the iodine was found mixed with the starch in this last case, as before, passing, as the author thinks, through the body.

He next gave an account of a number of experiments, to prove that it is possible to cause the transported body to be arrested in its passage through it, by this agent (galvanism). This was done by a combination of acupuncture and galvanism.

An enormous sarcocoele and a quartan fever were cured by this new therapeutic agent. Iodine was passed through the testicle in the one case, and the quinine in the other. (Archives Generales, May, 1833.)

M. Deleau gives some favorable experience in the use of the root of Belladonna, in the form of poultice, in neuralgia. It is cheap and effective.

In Germany, the use of sal-ammoniac and acetate of lead claims some attention in consumption. Sal-ammoniac may be useful, as the Germans say it is, in coughs, which are not tubercular: combined with sulphur, they state it has the best effects: this we can readily believe from the diaphoretic power of sulphur. The acetate of lead, as an internal remedy, is too often pernicious to be safely given in any chronic malady. They are administered in scruple doses of each (sal ammoniac and sulphur) four times a day. When the cough has any connexion with eruptions on the skin, with hemorrhoids, these remedies are valuable. (Hufeland's Journal.)

The erysipelas of new-born infants claims some attention in the journal of Siebold. Laxatives, the gentle action of the skin kept up by wrapping in warm clothes, are advised. Baths and wet applications to the surface are pernicious, as well as in the erysipelas of adults. If the disease has a spasmodic or nervous character, stimulant remedies are used. (Siebold's Journal.)

Mr. Dubois, the son of the celebrated surgeon of that name, has given a new theory of natural labor. The head presents, not through the influence of gravity, as has heretofore been supposed, but by a sort of instinct, which conducts

it to the os uteri. As the Academy Royal are about to have a discussion (Bulletin Generale) upon this interesting piece of philosophy, we leave it till the result of their deliberations is published.

The Bulletin Generale, from which the above notices are taken, gives the following curious results with regard to the proportions of deaths as influenced by the seasons. The deaths are about one-third greater in the country, compared with the cities, in winter than in summer.

For two children born in July, there are three in January and February. The maximum of conceptions must take place in May and June. The exposure and inequality of temperature produce the increased mortality in winter of the country.

The number of deaths in the low countries in January, for twelve years, was 10,345. In July, for the same time, 7,085. This is no doubt owing to the fact that the latitude is northern, and cold prevails. In Africa, the mortality would be as much in favor of July as in the low countries. The proportion of children born dead in January and July is as 5 to 4. For two children that die in January only one dies in July. This mortality, the result of the susceptibility to cold, gradually diminishes to the age of 10 or 12: summer, after this period, becomes the dangerous season. After marriage, the influence of the seasons appears to cease: at the age of 40, winter regains its power; and at 65, is equally fatal as at birth: at the age of 90, and upwards, there die two to three in winter, to one in July.

Recamier has lately given some interesting facts on the use of the cold bath, applied to the head, the body being kept at a temperature somewhat higher than that of the water thus affused. A woman was reduced to a state of indifference and comparative insensibility to surrounding events, by the too free use of opiates: a series of baths applied in the above mode restored her faculties.

An apparent and constant state of inebriation was produced by causes unknown in a person who had never indulged in spirituous liquors; this state continued after his arrival in the hospital: it was called a spontaneous narcotism or nervous stupor, no doubt owing to a state of chronic fulness of the vessels of the brain: the senses and mind and muscles were nearly par-

alyzed. Two baths, with simultaneous cold affusions on the head, recovered him.

A lady fell into a lethargy in consequence of the death of her husband: the first bath roused her, though stimulants and antispasmodics had before been ineffectual: they were continued with a good effect: the menses appeared: the bath was suspended, and the lethargy returned: they were again resumed: the menses returned, and the baths were again omitted: they were again used, and the disease soon disappeared. — (Bullet. Gener., March 1833.)

The deuto-chloride of mercury (cor. sub.) has been used to abate ophthalmia, where its seat was in the conjunctive. It was used in the dose of four grains to four oz. of water; it allays the pain and inflammation in a short time, though it excoriates and irritates the sound skin about the eye. (Sandras. Bullet. Gener., March 15, 1833.)

The plan of treatment of Soitre, by the seton, has been successful in the hands of Dupuytren: the author chooses to refer it to this surgeon as preceeding Quadri, of Naples: Quadri, however, first published on the subject, and is therefore entitled to the credit of introducing it, and the true claim of discovery: unfortunately, however, for both, it is an old remedy. The success of the seton depends much upon the character of the tumor; if schirrous, it is useless. Dupuytren seems to undervalue the iodine; he states that lately it has been used with a sort of *fury*. In districts, as in some parts of Canada, where it is endemic, there can be no doubt that it has succeeded admirably. The same is true in Switzerland. In countries where it is occasional, the gland becomes the seat of schirri and other tumors, and of course it cannot succeed.

M. Farzeau has demonstrated the existence of copper in vegetables, but more particularly in the farinacea. It, however, is so small, as to have no effect upon the health.

Ergot.—*Suppression of Uterine Hemorrhage.*—Messrs. Trousseau and Maisonneuve state almost universal success to be the result of the use of the ergot in hemorrhage from this organ, whatsoever may be its state.

The effect of the medicine is to produce spasmodic pains in the womb, in from eight minutes

or a quarter of an hour, or twenty minutes, which continue from a half to two hours; some times intermitting—in that case not continuing for more than a few minutes. The action of the medicine on the uterus is always powerful, but transient; its effect upon the general system is narcotic; it may be given in the dose of several drams in four or five days. There is nothing very new in these facts. It is said by Sparjan to cure leucorrhœa; this we believe wants confirmation. The French writers above mentioned succeeded partially in one case of this disease with the ergot. Sometimes idiosyncrasy requires a smaller dose than usual to be administered: five grains repeated thrice produced pain in the thigh, followed by languor and insensibility of the limb, with pallor and coldness; stimulant frictions were of no avail; they continued for three days.

From 1817 to 1832, M. Godquin delivered 1885 women; 1105 before he had used the ergot: 780 cases to which the ergot was administered. In the first period, he applied the forceps forty-four times, and eighteen of the children were dead born; in the second period, he used the forceps but twelve times, and three infants were dead born: or, before the ergot was used, he applied the forceps once in 25 cases, and there was one death in 88.

After the ergot was used, he applied the forceps once in 65 times, and one child died out of 260.

The ergot is never hurtful to the child, and often saves its life: in only one instance did it appear to produce any accident. It was used only in 49 cases out of 780: in 42 it showed its power; in 4 the forceps were used, being unwilling to increase the dose: 15 to 30 grs. was the ordinary dose. He relates the case of a woman, who received a violent kick upon the abdomen: uterine hemorrhage and syncope, threatening abortion, were the results; in fifteen minutes, the bleeding was stopped by 40 grains of the ergot: the dose was repeated twice at the interval of two hours: the bleeding never returned. Other facts equally striking are recorded by M. Godquin. (Bull. Gener. Ther. 1833.)

Some interesting experiments on the effects of tartar emetic show, 1. That the power of supporting large doses of this medicine (la tolerance) is not always obtained with equal facility.

2. Tartar emetic causes a simple, an erythematous, and sometimes a pustular angina, anal-

gous to the effects produced by its ointment, applied to the skin.

3. Aphæ and ptyalism are also its effects on the month; various disorders of the bowels are also produced by it. Though this medicine is powerful, yet as a general remedy it is inferior to V. S.

Tartar emetic succeeds best in recent cases, particularly when without complication, and when the subjects are young and vigorous: if feeble, aged or cachectic, or in cases of pneumony with feeble action, it is comparatively without power. Tuberculous pneumony, with diarrhœa—that pneumony which appears in the course of inflammatory disorders—and the exanthematous diseases, cannot be treated with this remedy.

The following preparations act with most constancy, and are most to be depended upon: the protoxide of antimony (argentine flowers of antimony); the antimonious acid (deutoxide of antimony); the antimonic acid (peroxide); tartar emetic; and Kermes mineral.

The pure metallic antimony, from the occurrence of acids in the stomach, becomes sometimes too active.

The effects of all these preparations are nearly the same, with the exception that kermes mineral acts too much upon the bowels in some cases.

The paper goes on to state the doses of the various preparations; but as in this country the tartar emetic will claim always the most attention, we need say nothing on that subject, as its dose is well known.

Some of the effects of antimonials on the different organs deserve to be noticed.

In phthisical cases they produce, if diarrhœa exist, a fatal inflammation of the bowels. The thirst after their use, in acute cases, diminishes in five or six hours, and a violent appetite for food succeeds. Diuresis diaphoresis, and catharsis are all results, vertigo, with a slight increase of pulse, then a diminution of the number of beats, (from 120 to 38 sometimes) continuing for some time after the medicine is omitted.

The breathings diminish to six from sixteen, twenty, and twenty-four in a minute. On the heart and arteries it operates as a sedative; the muscles, senses and brain being unaffected.

The pulse is abated only in young persons: in the aged never.

The medicine should be continued for some

days after the symptoms have disappeared. (Bull. Gener., June 1833.)

In an ophthalmia which occurred at Paris, the following application was found valuable.

R. Strong. merc. oint. \mathfrak{z} i.

Strychnine. grs. viii.

Essential oil of bitter almonds, viii. drops.

This ointment abated the inflammation and dilated the pupil, preventing adhesion between the iris and lens. (Ibid.)

An investigation into the existence of arsenic in white glass tubes has been made lately in Paris; it arose from this metal being discovered in the body of a person, who had been dead for several years. It resulted in the conclusion that there is no arsenic in glass: when arsenic is employed in making glass, it is volatilised by heat, and dispersed. If the quantity of the arseniate of soda in glass is increased, the glass becomes green; in some respects it is transparent, others opaque. Pelletier concluded that it is difficult to make glass, which contains arsenic; that if it does contain this metal, it is not transparent; and in this latter case, the arsenic is in too small quantities to do any injury. (Ibid.)

Violent vomiting, and even poisoning, are said to be the results of tartar emetic plasters applied to the skin. (Boullay.) This has lately been denied in Paris. It is difficult to prove a negative: idiosyncrasy may in some cases cause their fatal results. (Ibid.)

Subnitrate of bismuth has been used with success in curing chronic diarrhœa. (Ibid.)

Pure quinine has cured agues as successfully as the sulphate of the same salt. (Ibid.)

The juice of the elder, so much praised by the older writers in dropsy, has been used of late in Paris. Two or three oz. of the juice were given daily; vomiting and copious stools were the results, and finally a complete cure in cases where other remedies had failed. (Ibid. Sept.)

The collyrium made with a grain of corrosive sublimate to the oz. of water, is farther praised in violent ophthalmias. The eye was washed out immediately after each application with cold water (Ibid.)

The old story of the effects of the bite of the

tarantula in causing morbid symptoms, of which dancing is the most prominent feature, has been revived by Salvatore De Renzi, who relates a case of this disease: delirium, attended with agreeable sounds in the ears, were the prominent symptoms: a disposition to dance succeeded, then perspiration and a solution of the disease (Ibid.)

A recipe for preventing the old bachelors of France from becoming bald is gravely given in the April number of the Bulletin Therap. As it may amuse, if not relieve our brethren of the same class in the United States, it is here subjoined.

Beefs' marrow, prepared..... six drams.
Oil of almonds (sweet)..... two drams.
Red bark..... one dram.

Wet the powdered bark with oil of almonds, melt the beef's marrow, and rub them all together into an ointment. Celsus thought this malady incurable; we hope the experience of our bachelor friends may eventuate otherwise. This ointment is said never to fail. (Ibid.)

The administration of sulph. quin. in large doses is now warmly advocated in Paris.

Mercurial ointment rubbed upon the inflamed surface of the finger in whitlow, is working marvellous cures in that city: a few hours are sufficient to arrest the worst cases !!! (Ibid.)

A new mode of applying caustic potash to produce an eschar has been proposed in Vienna. Take six parts of powdered quick lime, and five parts of caustic potash; powder the potash in an iron mortar, adding gradually the lime: keep in close bottles for use: when it is used, add a little alcohol or cologne water to a small portion; apply it, thus made into a paste, upon the part. The pain is moderate, less even than that of a blister; at the end of five or six minutes the skin is cauterized down to the cellular membrane: the paste is then raised, and the eschar washed with a little vinegar. To cauterize more deeply, it may be left ten, fifteen, or twenty minutes on the skin. (Bull. Gen. de Therap. May 1833.)

It is proposed to treat the diseased toe, produced by the burying of the nail below the flesh, by cauterizing the projecting granulations, till they are entirely removed from the nail. (Ibid.)

Prof. Saccchi gives fifteen cases of extirpation of the ovaries. Six were successful; four fatal; five were attended with difficulties, which obliged the surgeon suddenly to cicatrize the wound; without, however, any untoward accident. One of the cases was cured by incision and the suppuration of the sac. Of the dead, three had enteritis; one hemorrhage.

Lizars and John Bell have advocated the propriety of these operations, which lay open the cavity of the peritoneum. In Kentucky, Dr. McDowell has in two cases successfully removed the ovary. It is therefore not so dangerous as has been generally imagined.

There are many objections to success in curing these cases by puncturing the sac—the division of the sac into compartments; solid and dense substances in the tumor; difficulty of reunion of the walls of the tumor, and in consequence, inflammation and gangrene; the escape of the fluid into the belly; a fistula in its sides. Saccchi concludes from all these facts that the operation of removal is the most effectual plan. (Ibid.)

It is proposed in preparing mercurial ointment to heat the mortar to the temperature of 212° F., as a means of expediting its formation. (Ibid.)

Mercurial ointment has been used in France with success, externally applied in curing erysipelas. This fact has been known in the United States for fifteen years. Dr. S. Collhoun, of Jefferson Medical College, Philadelphia, has shown that the lard of the ointment is the active ingredient, and that the mercury has no agency in it; on the contrary, it sometimes produces violent salivation. Drs. Dean and Little, of Pennsylvania, first turned the attention of the profession to the use of the mercurial ointment in erysipelas. Dr. Collhoun has instituted some comparative experiments with lard and sweet oil: the latter has some power, but much less than the lard in this disease.

The extract of the bark of the root of the Punica Granatum (pomegranate) has succeeded remarkably well in tænia in France: the powder and decoction have been hitherto employed. It has cured ascarides, which appeared to affect the whole alimentary canal. This last case is difficult to remedy.

Tartar emetic, applied on plasters, is considered as liable to produce vomiting and even

death, if kept on beyond twenty-four hours ; the ointment of tartar emetic has no such effect. This is the statement of M. P. Boullay, whose character in Paris commands the greatest confidence. The dangerous effects of tartar emetic plasters, left on too long, have been witnessed in the United States : they have produced sloughing, extensive and dangerous ulcers. The fact mentioned by Orfila, that one grain of tartar emetic, taken internally, has sometimes produced death in peculiar habits, is impressive, and corroborates the above statement by its collateral bearing.

Bricheteau records a case in which the recti muscles were completely laid bare by a plaster sprinkled with tartar emetic ; the skin and cellular membrane sloughed completely away : it was applied over the wounds made by leeches. The patient died. The plaster had been prescribed for a nervous vomiting, as it was termed.

Two cases are recorded in the Bulletin Therap. of death from leech-bites : in one case, the bleeding came from one orifice, and could not be stopped by nitrate of silver, and other means. The patients had been left alone for several hours before it was discovered ; the quantity of blood lost in the interval was fatal.

Dupuytren uses, in extensive suppurations, a solution of the acetate of lead to suppress the discharge, and it is said with good effect. In extensive fractures, burns, &c., the use of astringents are no doubt useful, as recommended by him. But perhaps the acetate of lead is the worst preparation that could be selected : locally applied, it has produced paralysis, colics, and it has often an irritating effect on recent wounds, which increases the inflammation. The editor of the journal (Bull. Ther.) says, also, that in burns it prevents for a long time the separation of the slough. Some of the vegetable astringents would answer better, reduced to powder.

Tartaric acid, 12 grs.

Mercury, one dr.

Lard, one dr.

Rub the lard and acid together on a porphyry slab ; add the mercury, and then rub them together with force ; in fifteen minutes the union is complete, and a good mercurial ointment is made.— (Bull. Therap.)

In the citrine ointment, M. Cédie thinks that when fresh, the mercury is in the state of proto-nitrate ; when old, in that of mercury, minutely

divided. Ether separates the fat, and proves the old and the new ointment to be thus composed. (Bull. Ther.)

The acetate of quinine sprinkled on a blister spread over the seat of a *tic douloureux* on the face, has cured it in two or three applications ; the case was under the care of Dr. Blouquier, of Gard.

The Huaco, a Mexican plant, has lately been introduced by Dr. Chebert, of Vera Cruz, in yellow fever, and, he states, with the greatest success. The Huaco is considered in Mexico as a specific against the bite of the rattle-snake, and other venomous reptiles : from some analogies between these last affections and the yellow fever, Dr. Chabert has experimented with the huaco, in this last disease ; he cured in 1832, 23 cases out of 24, and was so fortunate as to have not one death.

In the full tide of his success, the cholera appeared in France. It was tried in Bordeaux, but no conclusion was drawn with regard to its efficacy. Other experiments were made ; three out of eleven only died. It is given in decoction. The analogies of Dr. Chabert, drawn from the bites of the rattle-snake, are unfortunately too vague to settle any pathological indications on which this medicine may be directed. The bite of the rattle-snake exhibits all the states and consequences of inflammation in its local symptoms, and all the varieties of morbid affection of which the body is susceptible in its general effects, from hydrophobia down to simple fever ; the field of analogy is therefore too wide. The reputed virtues of any remedy drawn from the experience of savages are never supported, because the bites of poisonous reptiles require a diversity of treatment, as various as their symptoms. All the tales of the power of Indian panacea for the cure of the poison of the rattle-snake, have in this country only ultimately proved the futility of the remedies and the weakness of those who have confided in them.

The huaco is represented as a heating sudorific : in cholera, Dr. Pereyra, of Bordeaux, states that it removes the cramps, and suppresses the evacuations. Three spoonfuls of a decoction of $\frac{3i$ of the leaves, to a pint of boiling water, (another dram of the leaves being added on removing the vessel from the fire) are given every fifteen or thirty minutes.

The subnitrate of bismuth has been used by A. Trousseau with great success in diarrhœa ; it

is applicable to the following cases: 1. In simple diarrhœa, the result of cold, of excesses in eating and drinking, &c. It is given in the dose of six grains, two or three times a day.

2. It is said to succeed after mild and diffused cases of enterites, characterized by smart colics, vomiting, diarrhœa, and fever; and in the diarrhœa, succeeding dysentery the proper time to administer is after the fever has declined; it is of no use prior to that period.

3. When the diarrhœa has lasted long, it is necessary to be guarded in suppressing it; dropsy may otherwise be the result. The doses in these cases should be small. Diaphoresis by baths, and diuresis by medicines, should be promoted.

In phthisis it has no effect upon the diarrhœa; it, however, is harmless.

Dr. Trousseau relates a case of an extensive sloughing of the surface of the thigh, consequent on large phlegmonous tumors which appeared in the cellular membrane: diarrhœa supervened, with great emaciation, and symptoms indicating certain death. By the use of the bismuth, the patient recovered. (Bull. Gen. de Ther. Mai 1833.)

T. Constant speaks in the highest terms of the use of the chlorides of soda and of lime, in the gangrene of the mouth, almost entirely peculiar to children below the age of ten; it attacks those who have been weakened by bad food, bad air, or by the exanthemata. The actual cautery, and the strong acids, have been proposed as remedies for this dangerous disease. They are difficult to be applied, and injure the sound parts: the chlorides of lime and soda, since 1823, have been found to be valuable in arresting the progress of the complaint: abating the fetor, detaching the escars, and favoring the healing of the sore. It is used in the fœtid, sloughing ulcers of the gums, which result from the use of mercury; also those which appear in hospitals, from bad air. These chlorides may be applied to the sore in powder, by means of a little roll of wet paper: it should be then washed off with a bland fluid injected into the mouth; or injections of the chlorides may be made into the mouth, when the patient is too young to use a gargle.

Decoct. Quinquin. ℥iii.

Syrop. cort. aurant. ℥i.

Chloride of sod. ℥i. m. f. gargarismus.

℞ chloride of lime, 15 to 30 grs.

Solution of gum, ℥i.

Syrop. of the rind of oranges, ℥ss.

Mix for a lotion to the mouth.

(Bull. Gener. Mai 1833.)

LEGACY OF M. PORTAL.

This distinguished physician left a legacy of 12,000 francs to the Academy, for the purpose of instituting an annual prize of 600 francs to the author of the best memoir on "un Sujet Médical éclairé par des Données Physiologiques et Pathologiques." The subject for 1834 is—"Quelle a été l'Influence de l'Anatomie Pathologique sur les Progrès de la Médecine, depuis Morgagni jusqu'à nos jours."

DISLOCATION OF THE HUMERUS BACKWARDS.

M. Sedillot, surgeon at the Val de Grace, read a report of a case of luxation of the humerus backwards into the fossa infra spinata, which was reduced a year and fifteen days after the accident took place. This dislocation is so rare, that its occurrence has been denied by some. Dessault never saw a case; and Boyer mentions only one.

Sir Astley Cooper furnishes five cases of this species of dislocation. Two of which occurred in his own practice, and three in the practice of his friends. M. Sedillots cases is chiefly remarkable from the reduction succeeding so long a time after the occurrence of the accident.—*Editor.*

ULCERS OF THE OS TINÆ.

The following remarks on, and cases of simple ulceration of the os tinæ, are taken from the work of Mad. Boivin and M. Dugés, to the volume of which we have adverted at some length in a former number. The present subject is considered in the second volume of that able work.

M. Dupuytren has given some account of simple ulceration of the os tinæ. He observes that exploration with the finger only is not sufficient for the discrimination of the affection, which is readily recognized by means of the speculum. On this head we may refer our readers to a notice of a memoir by M. Ricord, in the last number of this Journal. M. Dupuytren proceeds to observe that the os tinæ being disclosed, the surgeon perceives on one or other lip superficial ulceration of a reddish aspect, confined to the mucous membrane. M. Dupuytren recommends cauterizations.

M. Delpech has observed similar ulcers, and cured them by cauterization with the acid nitrate

of mercury, many times applied. M. Marjolin observes that the size of the ulcers varies. Pains in the region of the kidneys, a sensation of weight at the fundament, dragging in the groins, heat in the abdomen and enlargement of it as in hysteria, and frequent flushings of the countenance, with or without leucorrhœa, are, according to the same author, the symptoms usually attendant on the disease. M. Dupuytren has added—pain in coitus.

Our authors advert to syphilitic ulcerations on the cervix and os tincæ. For an account of these we refer again to our notice of M. Ricord's memoir, although we may observe that much in these cases must depend upon the history and attendant circumstances.

Commencing cancerous ulcerations are often distinguished with extreme difficulty from simple ulcers. Local baths are some times successful in curing the complaint, and our authors relate one case in which sarsaparilla was equally effectual. Four cases are detailed.

Case 1. Madame M., æt. 42, of sanguineous temperament, had borne seven children, and was recently remarried to a young man. For some months she had experienced a feeling of swelling and weight in the vagina, with discharge of a greenish-white matter.

On examining the parts, M. Dugés found the neck of the uterus low in the vagina and much swollen, but without induration. On employing the speculum, this part of the uterus was found to be of a deep red color, the edges superficially ulcerated and of a reddish-brown hue. The contract of the edges of the instrument with the ulcer had occasioned the loss of about a spoonful of pure blood. The patient lost blood whenever she had connexion.

The event is not related.

Case 2. Mad. Cher, wife of a carpenter, æt. 30, of delicate constitution, was unable to suckle her second child on account of milk abscess. In one month after her accouchement the catamenia returned, and flowed regularly for fifteen months. After this the woman complained of pains in the kidneys and in the right groin, and every fifteen days the menses appeared in profusion. A physician prescribed leeches, but without success. About two years after the accouchement our author was consulted.

On examining the parts he found considerable tumefaction of the os tincæ, and extensive, though superficial, ulceration of its anterior lip. He

prescribed the frequent application of leeches round the pelvis and to the anus, cupping on the loins, mild aperients, decoction of sarsaparilla, and injections of decoction of poppies with belladonna. Besides these means, the patient was directed to use the warm-bath weekly. In five months the patient was cured; in the following year she became pregnant, and she has had no subsequent relapse.

Case 3. M. G. æt. 30, a cook, had a child at the age of twenty-three. The labor was tedious and difficult, and attended with considerable hæmorrhage. Eight days afterwards severe hæmorrhage again occurred. After this she regained her strength, and for six years the catamenial secretion was regular. The menses then became too abundant and too frequent. In April the patient had a great hæmorrhage, followed by the discharge of a yellowish matter in large quantity. In July, she entered the Maison de Santé. The neck of the uterus was found very low in the vagina, the orifice directed backwards and very open, and its edges thickened and fissured by ulceration. On the anterior lip of the os tincæ was a vegetation the size of a large cherry. M. Dubois proposed excision of the neck of the uterus, but the patient would not consent, and left the institution. At the end of a month she returned, having experienced a violent hæmorrhage in the interval.

She now fell under the care of M. Dumeril, who ordered her the one-tenth of a grain of the deuto-chloruret of mercury in pills, four times daily, with emollient and narcotic injections. The mouth was affected on the sixteenth day, when the medicine was suspended. It was resumed and continued for thirty-five days. On the twentieth day the discharge was so profuse that it seemed as if an abscess within the uterus had given way. The patient quitted the hospital before she was cured, and she has not since been seen. On examination before her departure, the excrescence was found to have disappeared, the neck of the uterus was less developed, and the edges of the os tincæ less hard.

Case 4. Mad. de W., æt. 33, a Swiss, experienced, in 1826, a sensation of heat in the parts and severe lacerating and cutting pains in the bottom of the pelvis. The uterus was rather larger than usual, and slightly painful. The patient, absent from her husband, was subjected to domestic uneasiness, and addicted to masturbation. Under anti-phlogistic treatment, and the discontinuance of her injurious practices,

she became much better. In 1829, our author was again called to her. Her health was much affected by the loss of her husband, the catamenia were very irregular, and she laboured under the persuasion that she had cancerous ulceration. On examination, the neck of the uterus was found swollen and exquisitely tender. Leeches to the anus and narcotic injections relieved her. In March, 1830, she was in nearly the same condition as before. The uterus, however, was larger and lower in the pelvis, the anterior border of the os tincæ thicker, softened, excoriated on its surface, and bleeding on the least contact. The unhappy lady had resumed her pernicious practices. After this the patient employed another medical attendant, M. Rullier, and the termination of the case is not detailed.

Case 5. Mad. Al., æt. 30, menstruated at the age of 15, married a few months afterwards, was a mother at 16, and, after that, had three natural labors, and three miscarriages, from the third to the sixth month. Each accouchement was followed by considerable loss of blood. This young lady had obstinate constipation, almost constant pains in the loins and inguinal regions, weight about the anus, sense of lassitude in the thighs, and slight leucorrhœa. Slight exercise fatigued, and coitus was often very painful to her. Examined in January, 1828, the uterus was found increased in length, and the orifice was extremely painful to the touch. By means of the speculum, the os tincæ was found to be about eighteen lines in diameter, of a deep red colour, denuded in parts of its mucous membrane. The exposed surface was of an intense red, contrasting with the lividity of the rest of the cervix.

The treatment employed consisted of leeches to the vulva, astringent injections, followed by narcotic, slightly purgative lavements, dry cupping on various parts of the pelvis, flannel next the skin, and hip-baths. Besides these means absence from the husband was enjoined.

Mad. Al. became much better, and, being allowed conjugal intercourse again, she soon became enceinte. This was in November, 1828, and, in December, she had the usual symptoms preceding abortion. She was bled and kept in bed. In February the same symptoms were renewed, with violent cough. She was again bled, &c. The lady had a long and difficult labor. She recovered after it, but our author understands that her complaint has returned.

Our authors observe that they could narrate several cases of enlargement and ulceration of the cervix uteri, cured by repose, regimen, and antiphlogistic treatment. In the preceding case they deplore the premature return of the patient to connubial intercourse.

GRANULAR INFLAMMATION OF THE OS TINCÆ.*

Our authors observe that this affection is rare, very little known, and nowhere described. It has escaped those who have not employed the speculum.

They divide the affection into two varieties, the subacute and the chronic.

In the former there are pain and deep redness of the os tincæ. The elevations discovered by the speculum are sometimes few in number, as large as peas, firm, and whitish; but more frequently numerous, of the size of millet-seed, whitish, and soft. From their interstices blood flows on the contact of the speculum, in examination with the finger, in coitus, and in defecation. In the chronic variety the granulations are hard and small, whitish, or red and soft, and without redness or softening of the os tincæ itself.

Our authors are tempted to believe that these granulations are not always of the same character, or arising from the same source. Sometimes they have seen them distinctly depend on a dartrous contamination, (vice dartreux,) and on syphilis. Sometimes they coexist when chronic, with induration of the cervix or fibrous tumor of the uterus.

The disease is not generally formidable when unaccompanied by serious complications. The treatment must be adapted to the more obvious indications—emollients, with local depletion in the acute stage—more stimulating measures in the chronic—specific treatment when the cause is syphilitic. In the greater number of cases derivatives, caustics, &c. have been productive of much advantage. The great point is to discriminate accurately the affection and its characters.

We will subjoin five of eight cases related by our authors.

Case 1. Mad. A. Mcnet, æt. 35, mother of two children, lived luxuriously till the age of twenty-eight, when reverses of fortune obliged

* Mad. Boivin and M. Dugés, *Traité des Maladies de l'Uterus*, &c.

her to give lessons in music, which occasioned much exercise of body and of voice. Our authors observe that uterine affections are common among singers. The menstruation was profuse and irregular, there was leucorrhœa, considerable tumefaction of the uterus, surface of the os tincæ livid and studded with vesicular-like granulations, bleeding from the os tincæ during exploration, defecation, and coitus; emaciation.

Bleeding from the arm to three palettes, cold injections into the vagina, cupping on the sacrum and perinæum several times repeated, the Eng-hien mineral waters, and some cups of a bitter decoction daily, were the means adopted. In three months the patient was able to resume her occupations. She was directed to wear flannel and to abstain from long walks.

Case 2. The Countess de C. enjoyed good health till the age of 25, when she met with reverses in fortune. From this time she experienced feelings of weight and pain in the genital organs, with irregular menstruation. In 1824, these symptoms were so distressing, that the patient was obliged to keep her bed. On examination, the os tincæ was found of a reddish brown color, soft, its anterior lip presenting two small white tumors, each of the size of a pea. This portion of the uterus was very painful, and, on raising the organ with the finger, pain was felt in the left iliac fossa—"a certain index of some morbid adhesion on this side."

Emollient baths—leeches to the pelvis—pills of extract of marigold (souci) and country air, were the means recommended. By the 26th May, the tumors had disappeared, and the patient was better in all respects. She took the baths of Plombières. Absence from the husband was practised. In 1831, she was quite well. This lady's daughter has a similar affection.

Case 3. The Countess de L. æt. 40, had formerly a herpetic affection of the arm and chest, which was injudiciously repelled. Great domestic unhappiness, and legal separation from her husband, were followed by irritation of the genital organs and venereal desires, which lasted sometimes for seven or eight hours together. Nothing had relieved this distressing affection.

On examination, the inside of the labia and entrance of the vagina were observed to be red and dry. The os tincæ was larger and lower than natural, and covered with numerous asperities, giving the finger the sensations of grains of sand. Pushing back the organ occasioned

pain in the cervix, and in the inguinal regions. The parietes of the uterus were considerably enlarged. Mad. L. would not permit examination with the speculum. We are not informed of the treatment, nor of the result of this case. It tends to show the local origin of a nymphomaniacal affection.

Case 4. A young woman, æt. 25, died in January, 1824, in consequence of accidental luxation of the two last lumbar vertebræ.

The uterus was of small size, and presented a small fibrous tumor in its anterior wall. Beneath the membrane investing the os tincæ, were soft white granulations, of the size of a pin's head, occupying chiefly the anterior lip. This young woman presented externally all the marks of virginity. Her menstruation had been too copious.

Case 5. Mad. L. æt. 45, had been brutally ill-treated by her husband, and had had several miscarriages. She entered the Maison de Santé, with symptoms that we need not stop to describe, and eleven days after her admission, she died of pneumonia.

Dissection. Besides effusion into the thoracic cavity, there were about three pounds of yellow serous fluid in the abdomen. The liver was studded with tubercles. There was a tumor of the size of a large orange above the left iliac fossa, another in front of the sacro-iliac synchondrosis on the opposite side. These tumors were cysts in the ovaria, which were much disorganized.

There was another cyst on the posterior wall of the uterus. The external surface of the latter organ was covered with small, white, prominent concretions, rounded and hard, like the tissue of the cervix. The cavity of the uterus was occupied by a compact of body, irregular, and of whitish-red color, composed of masses united together by a laminated tissue.

We have introduced this and the preceding article, to lead practitioners to make more particular examinations than they often do, of the condition of the uterus. They may perceive how the symptoms, of which patients usually complain, are common to many local alterations, some of which are perhaps unknown, even by name, to the generality of medical men.—*Medico and Chirurgical Review.*

FATAL HÆMORRHAGE BETWEEN THE ENVELOPES OF THE EMBRYO. BY J. T. INGLEBY, LECTURER ON MIDWIFERY AT THE SCHOOL OF MEDICINE, BIRMINGHAM.

A woman, æt. 36, the mother of six children, and in whom the last menstruation ceased on the 31st of August, expired very suddenly on the 14th of November, being about ten or eleven weeks advanced in pregnancy, under circumstances unusually mysterious. As respects her history, I learn that she was subject to a slight degree of giddiness upon exertion, her general health being otherwise good. At two o'clock, P. M., her husband left her perfectly well, and she was observed soon afterwards by the neighbors walking in the yard, apparently quite cheerful. She then went up stairs with the intention of making the bed, and, after shaking it, finding herself unable to proceed, came down stairs, looking exceedingly pale, and on seating herself in a chair, directed her little girl to tell one of the neighbors that she was poorly. They both returned immediately to her assistance, but on their arrival found she had expired. The case thus became the subject of juridical investigation.

On the clothes being removed, the covering next her person was found stained with wet florid blood and watery discharge. After a careful inspection by very competent individuals, the head and body were found perfectly healthy in all their parts. The stomach was distended with undigested food. The uterus was very minutely examined: it measured six inches in length, four and a quarter in breadth, and two in depth. An incision being made the whole length of its anterior surface, the decidua was seen beautifully developed, terminating abruptly just above the commencement of the cervix. On dividing it, the uterine cavity was fully exposed. The placenta appeared in course of formation on the posterior surface of the fundus. The embryo contained within the membranes was unnaturally forced to the summit of the organ by a large and firm clot of blood, which partially concealed the ovum, and occupied two-thirds of the cavity from the fundus to the neck. This coagulum was outside the chorion, but everywhere enclosed by the decidua. It measured three inches and a quarter in length, and one and a quarter in depth. The smooth part of the chorion was very distinctly lacerated in its centre, and around the edges of the laceration was detached from the amnion for some extent by an extravasation of blood. The effusion

could only have proceeded from the vessels connecting the amnios with the chorion, every other part of the ovum being perfectly natural. The os internum was nearly closed by mucus, and the effusion was walled in at the cervix by the deciduous membrane, excepting a small aperture in its centre, through which the fluid blood seen on the linen had escaped.

Observations.—Hæmorrhages from the uterus, at an early period of utero-gestation, occasioned by the detachment of the external coverings of the ovum, and the subsequent exposure of the uterine vessels, very rarely prove fatal. A fatal effusion, proceeding from the membranes only, has scarcely been supposed. Very minute vessels may undoubtedly yield a copious effusion.* But to what is this woman's sudden dissolution attributable? In the absence of all unnatural appearances elsewhere, how far is it referable to the uterine effusion and its attendant circumstances? Neither the amount of blood nor its mode of escape (assuming the effusion to have occurred very suddenly) can be regarded as a perfectly satisfactory explanation. It is true, that an injury of a very trifling kind—a blow on the stomach, for instance—has been known to prove suddenly fatal. Lacerations, also, of a trifling extent, have rapidly terminated in death, under the collapse consequent upon the injury. In a laceration which was situated at the cervix uteri, and detected soon after delivery, I found barely $\frac{3}{4}$ j. of blood effused in the

* In proof of this, I may allude to the case of a girl, who died recently in this town under excessive menstruation. But, in this instance, there was a remarkable idiosyncrasy, or hæmorrhagic tendency; a slight scratch invariably occasioned violent bleeding; and whenever the bowels were confined during the period of menstruation, the discharge was always excessive. She died under a menstrual effusion, attended with constipation, and not a vestige of disease was found, excepting a slight ovarian enlargement. Unfortunately, the plug was not resorted to. To the ovarian enlargement the excessive effusion was, I conceive, in a great measure attributable. Uterine flooding, according to M. Lisfranc, is almost constantly connected with uterine disease; but, in this particular instance, the effusion was menstruation in excess, and not flooding, properly so called, with coagulation of the blood.

abdomen;—death arose from collapse. But here we find no injury done to the mother's system,—merely a clot of blood præternaturally distending the uterus, and confining the greater part of the ovum to the superior part of the cavity. Allowing for the great sympathy subsisting between the uterus and the system generally during the embryo-formative process, still to account for so fatal an impression, we must necessarily pre-suppose a habit peculiarly feeble, and the nervous system susceptible of impressions from causes totally inadequate to affect an unimpaired constitution. M. Deneux is the only author who is known to me as having described hæmorrhages of this character, a circumstance I was not aware of when I published my treatise on Uterine Hæmorrhage. In his paper on the subject, M. Deneux comprises "any accumulation, extravasation, or infiltration of the blood into some part of the organs of generation, or of the envelopes of the fœtus."* Cases are then described of sanguineous effusion between the placenta and uterus; between the uterus placenta and the external membrane of the ovum (the decidua, I presume, is here alluded to); between the epichorion and the chorion (an effusion peculiar to the first two months); between the amnion and the umbilical vessels; and lastly, cases are given of several kinds of effusion co-existing in the same patient. It will be seen, by this reference, that M. Deneux does not describe a distinct laceration of the chorion together with its detachment from the amnion, and the consequent escape and extravasation of blood within the external membrane; nor do I find any case exactly parallel, either in Dr. Granville's "Graphic Illustrations of Absorption," or elsewhere.

I have recorded this case, not on account of its singularity and interest only, but under the impression, that by directing general attention to it, a better explanation may be given of its nature than it is in my power to offer. I trust the subject will be noticed by some of the numerous correspondents of the Medical and Surgical Journal.

ON THE FUNGATING VENEREAL ULCER.

BY JOHN HART, M. D.

"This form of disease commences in one or more vesicles, seated on the outer or inner sur-

face of the prepuce, on the cervix, more rarely on the glans, or corona glandis. In females it mostly occurs in the recess between the labia and nymphæ, on the inner surface of the latter, at the posterior commissure, and sometimes at the verge of the anus. Each vesicle, after a few days, is succeeded by an ulcer, which presents the following characters:—a well defined sharp edge, with an elevated border; when on the prepuce, the surface of the ulcer is generally concave, and covered with a yellow, or greenish yellow coating of tenacious pus; often there is a profuse discharge of pus, more especially if the ulcer be on the inner surface of the prepuce, or at the cervix; the pus, in this case, is mostly cream-colored, and of uniform consistence. This form of ulcer is not so frequently solitary as the Hunterian chancre, but generally occurs in a crop consisting of two or more.

"There is generally a good deal of pain accompanying this affection. The inguinal glands sometimes become tender and enlarged, but scarcely ever suppurate.

"When this ulcer is neglected or improperly treated, an exuberent granulation spouts from its surface, which is hard and firm when its seat is the glans, and softer when it occurs on the prepuce. I have seen this excrescence generally larger, softer, and of a paler color, on the genitals of females than on those of males.

"When the fungus is allowed to continue for any length of time, it acquires a greater degree of hardness, and is more difficult of removal; it often expands, so that its edge overlaps the skin around the margin of the ulcer.

"I have not known a single instance where this ulcer was followed by secondary symptoms, and I therefore consider it to be a purely local affection. I have had frequent opportunities of ascertaining that it was contagious. Men under my treatment for this affection frequently communicated it to their wives, in whom it invariably exhibited exactly the same appearances as those above described."

This ulcer is not affected by mercury, and is cured with escharotics, nitrate of silver, equal parts of savin and muriate of ammonia, sulphate of copper, or strong acetic; and Dr. Hart does not agree with Dr. Wallace in the opinion that mercury is necessary in this form of disease.—*Dublin Journal.*

* Journ. Gén. de Méd., tom. 68.

OBSERVATIONS ON THE TREATMENT OF TIC-DOULOUREUX, ILLUSTRATED BY CASES. BY JAMES RANKINE, M. D. LICENTATE OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

It appears, by a question, "*Utrum in pertinacibus capitis faciei doloribus aliquid prodesse possit, sectio ramorum nervi quinti paris? proponebat Viellart, 1768. Conclusio negativa,*" proposed before the faculty of Medicine of Paris 1768, that *Tic-Douloureux*, the *Trismus Dolorificus* of Sauvages, had been noticed at a period rather earlier than this. A description of an operation for its relief, by M. Louis, is given in No. 36 de la Gazette Salulaire, 1766. The first good description of its phenomena, however, under the name of *Faciei Morbus Nervorum Crucians*, was given by Dr. Fothergill so late as 1776.* Since that time it has been noticed by Darwin and others,† and at present it is of frequent occurrence.

The seat of *tic-douloureux* is generally confined to the nerves of the face, being branches of the fifth pair, and occasionally to the *portio dura* of the seventh pair. It has been conveniently divided, therefore, according to the part which it affects, into four species, the *frontal*, the *infra-orbital*, the *maxillary neuralgia*, and the *neuralgia* of the *facial* nerve. It sometimes, however, although more rarely, affects other parts of the body, to distinguish which, Dr. Mason Good, in his *Nosology*, notices three species, the *neuralgia faciei*, *pedis*, and *mammæ*. Mr. Abernethy mentions having met with it in the ring-finger.

The disease is characterized in its severest form by paroxysms of excruciating pain, plunging, as has been well observed, like an electric shock, in a manner similar to no other disease. These paroxysms last for an indefinite period of time, and are then succeeded by a period of almost entire freedom from pain, until the accession of a fresh exacerbation. This paroxysmal exacerbation appears to consist of a strong spasmodic affection of the physical structure of the nerve; the interval of a state of repose following as a consequence of the previous exhaustion, which continues until the vital energy of the part has been again sufficiently recruited to undergo a repetition of the phenomena. These are also sometimes attended with convulsive twitches in the muscles.

Of the cause of this painful and distressing complaint we are in a great measure ignorant; for although there are instances on record which appeared to be the consequence of external violence, wounds, and contusions, yet there are many examples, and these by far the greatest number, of the disease having occurred without any causes. This at least shows that some such agent may produce it. Sir Henry Hallford has thrown out a suggestion, that "the disease is connected with some preternatural growth of bone, or a deposition of bone in a part of the animal economy, where it is not usually found in a sound and healthy condition of it, or with a diseased bone."* And along with this suggestion, he has stated several remarkable cases, apparently giving great weight to it. I doubt, however, if the *tic-douloureux* was fairly to be attributed to the destruction or formation of the bone as a cause. From the long standing of the disease in the instances referred to, I am more inclined to look upon the circumstance as a result of the affection of the nerve itself; but, be this as it may, it will at most only act as an occasional cause, operating somewhat in the same manner as wounds and contusions, which, however, are more apt to give origin to *tetanus* than the disease under consideration. The great source of this disease, nevertheless, seems to be in some irritation in contact with the nervous system of the face, and occasionally of other parts of the body; and it is the want of a true knowledge of the locality of this irritation which has hitherto rendered *neuralgia* so perplexing.

That it has not its origin in the brain, the failure of the attempt to cure by cutting the nerve betwixt the seat of disease and the issue of the nerve from that organ, affords sufficient proof; nor is it local, as appears from the success of the remedies, which are not calculated in so short a period to remove a mere local disease, that is, a disease having its origin in its seat, as endeavored to be established by Sir Henry Hallford. I presume, therefore, that the true source of the irritation is at the sentient extremities of the nerves; and, in truth, in ninety-nine cases out of a hundred the disease does not arise from mere local affection, but has its origin in some cause far distant from where it is developed. This is, moreover, a true principle of action in many

*See Medical Obs. and Inquiries, Vol. v.

†Dr. Darwin was born in 1731; and died in 1802.

* See Essays and Orations, read and delivered at the Royal College of Physicians, by Sir Henry Hallford, Bart. M. D. &c.

diseases, and therefore I have been induced, in consequence of the result of a method of treatment which it is the principle object of this paper to communicate, to attribute, and with some degree of probability, the whole phenomena to an irritation, the result of a peculiar and unhealthy action in the digestive organs, acting upon their sentient nervous filaments. It is difficult, I am aware, to establish this, for the idea is not new, and has often been acted upon, though frequently unsuccessfully. It is almost unnecessary, I apprehend, to mention the intimate connexion which exists between the nerves of the face and the abdominal viscera.

I.—A. B. aged 27, May 13, has an excruciating pain over the upper eyebrow of the left side, confined to the space of about two inches above the supra-orbitary notch. Pain not constant, but comes on about noon, and decreases as the evening advances. Came on about five days ago. Eye not affected; no twitchings, no swelling, color natural. Has applied leeches without effect. Health, he says, is good; of a studious habit, dark complexion. Has been taking castor oil at the recommendation of a druggist.

℞. Tinct. Opii, ʒss.; Liq. Acet. Ammon. ʒj.; Camphoræ ʒj.; Ol. Oliv. ʒj.; M. Ft. Linimentum bis terve in die partibus perfricand.

℞. Extr. Conii Mac. gr. xij.; Hydr. Submur. gr. vj.; Pulv. Calumbæ ʒj.; Extr. Gentian. q. s. Ft. Massa Pilulas xij. divid. sumatj. bis in die.

Friday, May 18, feels completely relieved.—*Continuentur pilulæ paulisper diutius.*

About three years after this, the same gentleman experienced a similar attack, which was however, much milder, and yielded in a few days to the same remedies.

II.—C. D. aged 26, of a quiet disposition and sluggish circulation, is afflicted with severe pain over the right eyebrow, and shooting down deeply behind the eyeball, with considerable redness of the conjunctiva, and an increased secretion of tears. Came on three or four days ago, and has since increased. No headach, pulse unaffected; no pyrexia; tongue whitish. Had lately undergone a regular course of mercury for the secondary symptoms of syphilis, but is now quite free from that disease; and, except for the affection of the eyebrow, says he is quite well. Pressure upon the part relieves the pain. Was ordered to apply half a dozen leeches to the tem-

ple, and to take the following pill at bed-time.

℞. Hydr. Submur. gr. iij.; Extr. Hyoscyami, gr. ij.; Carb. Ferri, gr. v. M.

December 24 Eye relieved, but pain of forehead still continues, though more confined to the eyebrow. To be rubbed every three or four hours with the following liniment:—

℞. Extr. Hyoscyami, ʒj.; Aq. Font. q. s. ad formand. Liniment crassitud. mellis.

The liniment not applied on account of its color, being obliged to go to Birmingham (43 miles) on business in the evening. He was therefore ordered to rub the part with the following:—

℞. Camphoræ ʒj. Ol. Oliv. ʒvj. Tinct. Opii, ʒij. Ft. Linimentum.

December 28. Returned from Birmingham worse than before. He had been forced to apply while there for assistance, but without avail. The eye very red, and constantly weeping; little intolerance of light. Ordered the temple to be again bled with leeches, and a blister to be applied. The following purging powder to be taken in the morning:—

℞. Hydr. Submur. gr. v.; Pulv. Jalapæ, gr. xv. M.

December 29. Eye not much relieved. Ordered to use the hyoscyamus liniment, and the following mixture to be taken every three hours:—

℞. Sulph. Magnes. ʒx.; Infus. Ros. rubr. ʒvss.; Pulv. Ipecac. gr. x.; Ft. Mist. Coch. ij. ampla pro dosa.

To take the following draught at bed-time.

℞. Tinct. Opii. gtt. xl.; Vini Antim. gtt. xxx.; Aq. Cinnam. ʒj. M.

December 30. Bowels confined; pain better; eye clear, without intolerance of light.

℞. Infus. Sennæ, ʒiss.; Sulph. Magnes.; Mannæ opt. aa ʒj.; Tinct. Rhei, gtt. xv.; Ft. Haustus; mox sumendus.

Sent for in the evening, a most violent paroxysm of pain having come on. The conjunctiva injected, and the eye weeping copiously. Ordered the same liniment as for A. B., to be well rubbed over the seat of pain, and one of the pills, as for do. to be taken twice a-day.

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, APRIL 9, 1834.

No. 19.

OBSERVATIONS ON THE TREATMENT OF TIC-DOULOUREUX.

[Concluded.]

January 1. Half an hour after the application of the liniment the pain moderated.

Evening. Has had four of the pills, and feels greatly better; the pain only coming on about every three hours, which is immediately relieved by the application of the liniment.

January 2. Feels much better altogether; very little pain, and referred to the upper eyelid and outer corner of the eye. The vessels of the *conjunctiva*, and inner side of the lower eyelid especially, numerous and enlarged, and of a scarlet color, with copious secretion of tears when the eye is touched. In other respects the eye natural, and no intolerance of light, or weakness, or dimness of sight. Has had five pills.—*Continuentur Pilulæ et Linimentum.*

January 5. Improving rapidly. Had only one slight twinge yesterday evening, at which time it has always been most violent.

Take one pill every afternoon; continue the liniment if pain should come on. Bowels open.

January 7. Has had no paroxysm since last noticed, and feels very little inconvenience.—Continue the one pill a little longer.

January 10. Has been perfectly well since last report, and continues so,

N. B.—One year after this, C. D. had a similar attack in the other eyebrow, attended with most excruciating pain, which, by the same mode of treatment, got perfectly well in seven days.

III.—E. F. aged 46, of a fair complexion, and rather delicate, is laboring under a most excruciating pain, which makes him stagger like a

drunken man, over and about the right eye, attended with a thin fetid discharge from the right nostril, was affected with these symptoms, accompanied with twitchings of the face, first about five weeks ago; but, after taking a solution of the sulphate of magnesia in infusion of roses three times a-day for sometime he got better; but the disease has returned more violent than ever, and he obtains no relief from the medicine as before. The pain generally continues very severe for four or five hours, then remits, and sometimes entirely disappears until next day, when it returns with its usual violence. Eye not inflamed, but when opposed to the light feels rather tender. Tongue rather foul; pulse small; bowels open. Was bled before I saw him with leeches on the temple, but feels much worse since.

Take one of the pills twice a-day, as for A. B.

October 17. Has had another severe attack of pain this morning, but is now better.—To use the liniment as for A. B., and in the same manner.—*Sumat æger ðii Pulv. Jalapæ comp. cras mane.*

October 18. Has had no severe attack of pain since yesterday, and feels comparatively easy: nothing but a feeling of soreness being present. Bowels opened by the powder; pulse 90, pleasant; running from nose continues, and is very fetid; in amount about a table-spoonful in twenty-four hours; is now rather thicker; has taken four pills.—*Continuentur Pilulæ et Linimentum.*

October 19. Continues better.—*Continuentur. R Sulph. Magnes. ʒss.; Aq. Menth. pip. ʒiss., Spt. Eth. Nitr. gtt. v. Ft. Haustus, mane sumendus.*

October 20. Is free from pain, and feels nothing but a little cuticular soreness of the upper

eyelid; medicine has operated once; discharge from the right nostril continues; has taken eight pills.

October 21. Has called to say he is quite well.

IV.—G. H. aged 50, of a thin, spare, and dried habit of body, suffering frequently from affections of the stomach and liver, during the night, was attacked with an excruciating paroxysm of pain, plunging “like a dagger” behind the right ear; has often had toothache, but it far exceeds any pain she ever suffered from that disease. Pulse natural, and has no other complaints except windy belchings from the stomach. Bowels regular; tongue whitish; and covered thinly with a thick creamy-like mucus; suffers very little pain, except during a paroxysm, which generally comes on at night, towards the morning.

To have a pill twice a-day as A. B., and foment the part with a strong decoction of poppy heads.

October 4. Has had two paroxysms this morning early, but not severe. Bowels open.—*Continuentur.*

October 5. Has had other two attacks this morning, but so trifling that she considers herself nearly well: Had four stools yesterday, and thinks it is from the pills.—*Continuentur.*

October 6. Free from pain, but complains of a little stiffness. Take one pill once a-day.

October 10. Quite well.

Of a fifth case I have lost the notes, which I particularly regret, as the case was a very severe one, of long standing, and the patient, a female, almost worn out with pain and suffering. The same remedies, however, were applied, and with complete success. The disease was situate in the *portio dura*.

What is to be remarked in this treatment is its simplicity, permanency, and great success. Those medicines which have hitherto been used most successfully are, quinine, opium, mercury, and the carbonate of iron, together with sea air, exercise, and attention to the general health. All of them have a tendency, more or less, to improve the secretions; and more especially the most successful of them, the carbonate of iron. Those drugs on which I place dependence, and which seem to act as a specific, are hemlock, calomel, and calumbo root. What then is the action of these remedies?

Hemlock extract is a powerful anodyne, abating pain without producing costiveness, and has

been used with great success in many painful diseases,—as cancer; it has also been used in chin-cough, where it has a wonderful effect in allaying the spasmodic paroxysm, and in other spasmodic diseases.

Calumbo is a powerful, antiseptic and bitter, and an excellent tonic, and has a particularly good effect in case of biliary derangement, especially cholera and bilious remittent fever, and for this purpose it is much used in India. It is also a most excellent remedy in several forms of *dyspepsia*.

Calomel is a remedy of almost universal application, and by proper management may be made to increase almost any of the secretions or excretions;—possessing a specific action on the liver, and a powerful effect in allaying biliary irritations,—in such cases removing uneasiness, and acting as an anodyne better than opium itself, or any other sedative.

The operation of these combined remedies, is to improve the secretions, open the bowels, and relieve pain. In this instance, they cure, by allaying the increased sensibilities of the nervous filaments of the stomach and *duodenum*, ameliorating the acrimonious secretions poured into them, carrying the feculences downwards, and improving and bringing to a healthy state the vital process of chylification. Thus I would regard *tic-douloureux* as a spasmodic affection, having its origin in a certain irritation developed in the digestive organs.

That excellent observer, Dr Hamilton, in his observations on *chorea*, sufficiently proves that irritating matters in the intestinal tube are sufficient to produce disease of a most virulent kind. He also proves how insufficient mere stimulant and sedative remedies are in diseases arising from irritative accumulations; and hence we are led to understand the hitherto ineffectual practice pursued in the cure of *tic-douloureux*. It is of no use to reply that purgatives have been tried and have failed. The success of the above practice amply shows what a proper selection of remedies can effect in that way;—for what avails it merely to remove unhealthy collections without at the same time destroying the cause which first produced, and then kept them up? The case No. III. shows distinctly that the disease did not arise from a local cause, as Sir Henry Hallford would immediately have fancied, notwithstanding the undoubted existence of osseous disease. Moreover, the disease sometimes spon-

taneously disappears, without any apparent reason.

The seasons of accessions and intervals of pain are more difficult to account for on the above principles, and I cannot resolve the difficulty in any other way than by supposing that these took place when the stomach was most empty, and therefore less protected against the peculiar irritation; the accessions occurring as in Nos. I. and III. three or four hours after breakfast; in No. II. the same number of hours after dinner; and in No. IV. when the pain occurred in the morning, the woman generally took heavy meat suppers.

To the liniments I attribute little besides the effect of friction, and the keeping the mind of my patient easy, under the apparent trivial treatment of so painful a disease.

CASE OF TUMOR IN THE REGION OF THE LIVER, WITH DISCHARGE OF BILIARY CALCULI THROUGH THE PARIETES OF THE ABDOMEN, WHICH TERMINATED FAVORABLY. BY WILLIAM MACNISH, M. D. SURGEON, EDINBURGH, LATE SURGEON 63d REGIMENT.

A LADY, aged about 27, of delicate constitution, the mother of several children, after a residence of between two and three years in the West Indies, during which time she enjoyed tolerable health, when at Barbadoes in 1817, experienced an attack of acute *hepatitis*

It commenced suddenly with sickness and vomiting, severe pain, tension, and fulness of the region of the liver, the pain greatly increased by pressure, and extending to the right shoulder. There was cough, with *dyspnœa*, and inability to lie on the left side; pulse frequent, with urgent thirst; furred tongue; and hot dry skin. By repeated bleedings, saline purgatives, blisters, and the exhibition of mercury so as to affect the mouth, the active character of the disease was in a short time subdued; but it was two months before the lady could leave her room, and then in a very debilitated state, and unable to walk upright.

Her convalescence proceeded so slowly, and her state was altogether so unsatisfactory, that a return to Europe was deemed essential to her recovery. Circumstances, however, prevented her leaving Barbadoes till May 1818, when she sailed for England.

During the voyage her health improved considerably; but towards its termination, she be-

gan to complain of constant uneasiness in the region of the liver, in which there was an evident fulness, and some pain on pressure.

On her arrival in London, early in August, there was a visible tumor below the margin of the ribs, with considerable surrounding tumefaction, and so tender that she could not bear the least pressure of the fingers. Its surface was discolored in two places, at which it seemed probable the tumor would point. At the end of the month, however, there was no perceptible change.

September 15. The tumor had greatly decreased, the pain and tumefaction had subsided, and she could bear to have it freely examined. The discoloration was now confined to one spot, where there was an indistinct feeling of fluctuation. The tumor extended from the margin of the false ribs of the right side to within a couple of inches of the groin, the glands of which were enlarged and painful. Its greatest breadth was little more than two inches, it became narrower as it descended, and as its termination was not more than an inch in breadth. It was irregular and hard; and so thin and superficial, that in grasping it the fingers could almost be made to meet behind it. At its upper part it adhered to the *parietes* of the *abdomen*, the remainder was unattached and moveable. She complained of a sense of fulness or weight, and of occasional lancinating pains in it. Her appetite was weak, and her health considerably impaired.

It was agreed in consultation, that the tumor should be opened at the inflamed spot, and a tent introduced with the view of giving vent to any contained fluid, and of establishing a drain.

September 20. Tumor opened; a small quantity of healthy-looking *pus* followed the lancet, and more was obtained by pressure; but the discharge was altogether inconsiderable, and in a few days was little more than sufficient to moisten the tent, which was daily introduced. So rapid a diminution of the tumor now took place, that, by the first of November, it was not half its original size. On the ninth she complained of much pain in the tumor, nausea, headache, and other febrile symptoms, which continued with little abatement till the fifteenth, when, on withdrawing the tent, I was surprised to find a hard substance in the wound, which proved to be a gall-stone, about the size of a nut. On the following morning another was discharged. A state of comparative ease now succeeded, and

continued till the twenty-fifth, when there was a recurrence of the pain, followed (on the twenty-ninth) by the expulsion of another *calculus* and some fragments. Her health now improved daily; and, though the tumor for some time felt hard and painful on pressure, it was productive of little more discomfort than that occasioned by the daily renewal of the tent.

In March 1819, she was in the fifth month of pregnancy, though the menses had not appeared since she was first taken ill. As utero-gestation advanced, the liver became uneasy, and her general health suffered. On the 20th May, she had a severe and lengthened shivering fit, succeeded by a most distressing hot stage and great debility. Premature labor followed.

A new train of symptoms now supervened. A fortnight after delivery she was seized with violent pain in the epigastric region extending to the back, directly under the *scapulæ*, and stretching down the left side, accompanied for the first time with universal yellowness of the skin. For two days the pain continued severe, and was succeeded on the third by a profuse discharge of a transparent glairy fluid, which, during the three days of its continuance, wetted a great many cloths. Twenty-three large towels were shown me, on most of which, though the fluid itself was perfectly colorless, a tinge of yellow or green remained.

From this period she experienced a succession of similar attacks, at intervals of from four to six weeks, the pain uniformly commencing in the *epigastrium*, extending to the back, and ceasing on the appearance of the discharge, which generally continued about forty-eight hours, but in decreasing quantities till March 1820, when the paroxysms, which had been gradually assuming a milder character, finally ceased. She then went to the country, and took much exercise in the open air. The change was productive of the best results. Her appetite returned, and she gained strength rapidly, and even became stout. She complained at times of uneasiness and sense of weight in the side; but these feelings were of short duration, and productive of little inconvenience. By the end of the year her health was re-established; and, with the exception of occasional slight dyspeptic attacks, has continued tolerably good since.

From the first appearance of the bilious hue to the cessation of the paroxysms, a period of ten months, the skin was more or less yellow, each

successive attack being either accompanied or succeeded by a deeper tinge.

In two only of the paroxysms was there any irritability of stomach. The appetite was always defective for some time before an attack, and the bowels were rather slow; but, until the skin became jaundiced, the evacuations, though often unhealthy, generally contained a fair proportion of bile.

The tent, which had been constantly in the side since September 1818, was in August 1821 withdrawn. Within a month after, the wound had completely cicatrized. I have no doubt the tent might have been removed with perfect safety at a much earlier period, but it was continued at the desire of the patient, who firmly believed that the healing of the wound would be followed by unpleasant consequences.

For a little space around the cicatrix, which is nearly two inches below the margin of the ribs, the liver is hard, and adherent to the abdominal *parietes*, and feels uncomfortable on pressure, but no vestige of the pendulous tumor can be discovered.

As to the treatment, it is unnecessary to say much. For the most part, it consisted of mercury in some form or other. Generally small doses of the blue pill, either alone, or when a purgative effect was required, in combination with the extract of colocynth. The nitro-muriatic acid bath was used for some time, seemingly with advantage. For the alleviation of the pain during the periodical attacks, various measures were resorted to, but the most successful were opiates in large doses, fomentations, and stimulating frictions. Light tonics, as the cascarilla or quassia, with the carbonate of soda, and infusion of rhubarb in such doses as to regulate the bowels, were in general use throughout the disease, and were very beneficial.

AN ACCOUNT OF AN IMPROVED MODE OF ADMINISTERING SULPHATE OF MAGNESIA (EPSOM SALT), WHEREBY IT IS RENDERED AN AGREEABLE, SAFE, AND EFFICACIOUS PURGATIVE, APPLICABLE TO ALMOST EVERY CASE IN WHICH A PURGATIVE IS REQUIRED. BY JAMES HENRY, M. D. VICE-PRESIDENT OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

SATURATE any quantity of cold water with sulphate of magnesia; filter through paper, and add to every seven ounces of the solution one

ounce of the *dilute* sulphuric acid of the Dublin or Edinburgh pharmacopœias.

Dose.—One table-spoonful in a wine-glass of water.*

In those cases in which the bowels are very easily moved, a single table-spoonful is sufficient to produce a considerable purgative effect.

In ordinary cases, a table-spoonful taken an hour or two before breakfast produces one or two evacuations immediately after breakfast.

In other cases, the dose is to be repeated once or twice, at intervals of two or three hours, according to circumstances.

Where the symptoms are urgent, a table-spoonful may be given every hour until the effect is produced; and where the urgency is extreme, a saturated solution of the salt, containing only one-half of the above-mentioned quantity of acid, may be given in doses of two table-spoonfuls, repeated every hour.

This combination of sulphate of magnesia and sulphuric acid, administered according to the preceding directions, possesses the following properties.

1. It is an effectual purgative, never failing to move the bowels in all cases in which the bowels can be moved by medicine. I am not acquainted with any purgative which is more certainly effectual.

2. It is quick in its operation; the effect being produced in ordinary cases within two or three hours after the first or second dose, and a necessity rarely arising for the continuance of the medicine beyond the third dose.

3. It is safe, never purging so as to produce exhaustion.

4. It does not give rise to the slightest degree of nausea, but, on the contrary,

5. Quickly puts a stop to nausea, and appeases irritability of the stomach.

6. Flatulence, that most distressing attendant upon constipated bowels, is immediately and signally relieved by this medicine, which not only promotes the expulsion of the *flatus* already generated, but diminishes the tendency to its further secretion.

7. In a few minutes after this medicine has been swallowed, so agreeable a sensation of warmth is felt in the stomach, that the medicine is not only readily taken, but even relished by

many persons whose stomach will not retain any other liquid purgative, unless impregnated with the hottest aromatic tinctures.

8. The operation of this medicine is not attended by either sickness, faintishness, or griping. In this respect the acid saline solution possesses a remarkable superiority over all the purgatives in common use.

9. This medicine can be taken every day, or every second day, for a considerable length of time, not only without impairing the stomach or other digestive organs, but with manifest advantage to them.*

10. The continued use of this medicine does not produce that irritation of the *rectum* which so commonly attends the continued use of other purgatives.

11. This medicine is not disagreeable to the sight, being perfectly limpid and transparent as the purest spring water.

12. It has no smell.

13. The bitter nauseous flavor of the sulphate of magnesia being almost completely hidden by the acid, the taste of the solution can hardly be said to be at all disagreeable, and is certainly much less so than that of most other liquid purgatives.

14. It is cheap.

15. It is easily procured everywhere.

16. It keeps for an unlimited length of time.

From the experience of three years, during which I have made daily use of this purgative in the course of my practice as a physician, I have ascertained that the acid saline solution possesses the properties which I have just enumerated.†

The great superiority of this mode of combining and administering sulphate of magnesia, above all the other modes in which it has been hitherto administered, will appear from a comparison of the effects of the solution made, as

* The frequently repeated contact of the acid saline solution being injurious to the teeth, it is useful to adopt the precaution of taking the medicine through a quill, or from the spout of a small tea-pot, whenever it is necessary to continue its use for any length of time.

† Several persons to whom I have given this medicine have told me, that, some years ago, they obtained a medicine strongly resembling it, both in appearance and properties, from a gentleman in this city, since deceased, who prepared it himself, and vended it as a nostrum.

*Each table-spoonful contains about two drams of sulphate of magnesia, and half a dram of dilute sulphuric acid.

above directed, with those of sulphate of magnesia, whether administered as a domestic remedy, or under the direction of the physician.

Sulphate of magnesia, when used as a domestic remedy, is dissolved in warm water, in the proportion of one or two ounces of the salt to a large tea-cup of water. This is taken at a single draught. Thus taken, sulphate of magnesia seldom fails to produce several copious liquid evacuations, and has accordingly acquired great celebrity, both in these countries and on the continent of Europe, as a safe and efficacious purgative. In this form, however, it is attended by the following inconveniences, from all of which the acid solution above described is entirely free.

1. It is to all persons extremely disagreeable, and by many cannot be swallowed at all.

2. So large a quantity taken at one dose is apt to produce, almost immediately, heaviness, headache, and even nausea.

3. This dose, as it is called, of Epsom salts operates severely, producing almost always so many copious liquid evacuations, as to inconvenience even the robust, and not unfrequently to reduce invalids and debilitated persons to a state of dangerous exhaustion.

4. A distressing flatulency of stomach and bowels accompanies its operation, and continues for some time afterwards.

5. Although the immediate effect of a dose of Epsom salts is to open the bowels freely, yet it is almost invariably found that the costiveness which follows the operation of the medicine is worse than that which it was taken to relieve.

In order to obviate the inconveniences attendant upon the operation of sulphate of magnesia, administered uncombined and in a full dose, physicians usually administer it in divided doses, and in combination with various other medicinal substances. Thus they frequently direct two ounces of the salt to be dissolved in from six to eight ounces of the acid infusion of roses, and one or two table-spoonsfull of the solution to be given every second or third hour. By this means they obtain the following advantages.

1. The medicine being taken in divided doses, the ill effects of a full dose taken at once are avoided.

2. The disagreeable taste of the salt is in a considerable degree hidden by the infusion of roses, and by the small quantity of sulphuric acid contained in it.

3. The acid contained in the infusion of roses contributes in some degree to make the salt lie

more easily on the stomach, and to prevent griping.

But although sulphate of magnesia thus administered possesses these advantages over sulphate of magnesia as taken popularly, and without medical advice, yet it is still defective as a remedy; because, first, the proportion of the salt to the water in which it is dissolved is so small, that a great quantity of the solution must be taken before the effect is produced, by which means unnecessary trouble is given to the patient, and much time lost. Physicians, sensible of this disadvantage, do not usually administer the salt in this form, except to persons whose bowels are easily moved by medicine; and if they do administer it in this form to others, are under the necessity of giving a mercurial or resinous pill on the preceding night, which, by its activity, may compensate for the inactivity of the salt. Thus, two medicines are used, where, if a saturated solution of the salt were employed, one would suffice. *Secondly*, The quantity of acid in the infusion of roses is not sufficient to hide the disagreeable flavor of the salt, much less to correct its nauseating and griping properties. Physicians, therefore, very often add a dram, or two drams of the dilute sulphuric acid to the solution, thereby rendering it less nauseous and griping. But this quantity of acid is, as I have ascertained by repeated trials, utterly insufficient to neutralise effectually the disagreeable properties of the salt,—*an entire ounce of the acid being required for every seven ounces of the solution.*

On other occasions, the physician, instead of the infusion of roses, uses some one of the warm distilled waters as a solvent for the salt, and adds to the solution either a purgative or an aromatic tincture, or both. All these complicated processes are used to effect that which is more readily, more certainly, and more cheaply effected by the simple formula, which it is the object of this paper to recommend. Prepared according to that formula, the acid saline solution is a purgative capable of almost universal application, being not only well suited for domestic use, and for the practice of the physician, but being pre-eminently adapted for employment as the ordinary purgative of hospitals, dispensaries, and other public institutions, and more especially of the army and navy services.

It is adapted for domestic use, because it is safe, efficacious, easily prepared, devoid of disagreeable taste and smell, does not produce nau-

sea or griping, and keeps for an unlimited length of time.

It is suited to the practice of the physician for the same reasons, and also because it is not only an elegant-looking preparation, being, when used singly, as transparent as the purest spring water, but is easily given in combination with other medicinal substances, as sulphate of quinine, &c. By diminishing the quantity of the salt, or increasing that of the water, as well as by the increase or diminution of the dose, the physician can adapt the medicine still more accurately to the particular circumstances of each case. He can also at pleasure alter its flavor and appearance, by adding to each half pint of the solution, half an ounce of the infusion of roses, or of any colored syrup,—as the syrup of red poppies, which gives the solution a rich red color, or the syrup of saffron, by which it is rendered a beautiful yellow. Except in a few rare cases, the quantity of the acid ought not to be much increased beyond what I have specified. I have, however, given it in double the quantity, without any bad effect; but I would not recommend the practice for general adoption.

The acid saline solution is besides peculiarly adapted for the use of hospitals, dispensaries, and the army and navy services; because, in addition to the valuable properties just enumerated, it is cheap, easily procured, easily carried,* and may be made to supply the place of almost every other purgative.

In all these respects it is infinitely superior to the ordinary purgative of our public institutions, which consists of an infusion of senna, holding in solution either sulphate of magnesia or sulphate of soda, or both, and commonly known by the name of the “black bottle.” This medicine, in as much as it contains senna, is.

First, Expensive in the first purchase.

Secondly, Containing senna it will not keep, for which reason much of it is lost, and the expense thereby considerably enhanced.

Thirdly, Containing senna, it has a most nauseous odour.

Fourthly, Containing senna, it has a most disagreeable appearance, whence its popular name, “black bottle.”

* It is scarcely necessary to observe, that in the army and navy services, the salt should be carried in the dry state, and the solution made only when wanted for use.

Fifthly, Containing senna, it is apt to be rejected by vomiting. This emetic property of the medicine is, when not desired, always distressing, sometimes injurious to the patient, diminishes and delays its purgative effect, and increases the expense, in as much as it makes a greater quantity necessary.

Sixthly, Containing senna, it produces at the time of the operation of the medicine considerable sickness and griping.

To obviate this inconvenience, it is usual to combine aromatic tincture with it, by which not only is the expense very considerably increased, but the medicine rendered less fit for many cases.

Seventhly, The ordinary dose of the “black bottle” is one wine-glassful, which is at least thrice the bulk of the largest dose that is ever required of the acid saline solution.

Eighthly, Senna cannot always be procured, especially in country parts; and when it can be procured, is frequently of bad quality, its high price affording an inducement for the introduction of inferior qualities into the market, and for the adulteration of the superior kinds by the admixture of various substances.

Ninthly, The superior kinds of senna being the produce of a foreign country, the supply may be stopped by various accidents, as by war, foreign export, regulations, &c.

Tenthly, The money paid for senna is so much sent out of the country, while sulphuric acid being of home manufacture, the money expended on it circulates at home.

Eleventhly, For making the “black bottle,” boiling water is required, and, even after the boiling water has been procured, an hour must elapse before the senna is sufficiently infused. As the infusion does not keep more than two or three days, (and in warm climates not even so long,) only a small quantity of it can be made at once. On the other hand, the acid saline solution can be made in the space of a few minutes, and in any quantity.

I have instituted the preceding comparison between the acid saline solution and the “black bottle,” because the latter is the ordinary purgative of our public medical institutions. It is as unnecessary, as it would be tedious, to compare the acid saline solution with each individual purgative employed by physicians.

Every physician will of course be guided in the choice of his purgatives by the peculiar circumstances of each case, but there is no purga-

tive so generally applicable to all cases; so safe, so agreeable, and at the same time so efficacious, as the acid saline solution. It is the reproach of our art that the means which we employ to remove disease are almost always disagreeable, sometimes as disagreeable as the diseases themselves.

Our purgatives particularly subject us to this reproach, and in an especial degree, our liquid purgatives. If I shall have succeeded in introducing to general notice a liquid purgative which is not disagreeable, either to the taste or smell or sight, while at the same time it is efficacious, without producing sickness or griping, I shall feel that I have contributed somewhat to lessen the reproach hitherto but too justly cast upon our art, and that the time which I have bestowed on this subject has not been thrown away.

REPORT OF DISEASES OCCURRING AT THE WELLESLEY DISPENSARY FOR LYING-IN WOMEN AND DISEASES OF FEMALES, DURING THE YEAR 1832. BY FLEETWOOD CHURCHILL, M. D. LICENTATE OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.

I HAVE confined myself to descriptions of the diseases as they were presented to me, and have rarely referred to those of authors. Upon the lowest calculation, not fewer than five hundred patients have applied for relief at the dispensary during the past year. If from this number we deduct the ordinary diseases occurring during pregnancy, with those cases of very slight disorder which so constantly annoy females in that situation, we may certainly state 300 as the number of diseases calling for our notice.

One-half of this number were disorders of *Menstruation*. One-third of the remainder *leucorrhœa*. Nearly as many of *prolapsus* and *cancer uteri*. A considerable number of cases of inflammation of the *labia pudendi*,—of inflammation of the *cervix uteri*,—of abscess of the breast,—with several of irritable *uterus* and puerperal fever.

The inflammation of the *labia pudendi*, or of the external orifice of the *vagina*, was always accompanied with severe pain, scalding on passing water, with a sense of bearing down, together occasioning much distress to the patient,

On examination, a deep blush of inflammation, with perhaps a slight ulceration, was all that

could be detected, apparently by no means equal to the irritation excited.

The treatment consisted of aperients, with the local application either of black wash or a lotion of sugar of lead. The ulcerations were touched with nitrate of silver.

These cases were all speedily cured.

Inflammation of the vaginal canal, giving rise to *leucorrhœa*, presented itself in females of all ages, from young children to aged women. In some, the symptoms so strongly resembled *gonorrhœa*, as to render the diagnosis difficult, except in those cases where the character of the patient removed all doubt of venereal contagion.

In others, the usual leucorrhœal symptoms were observed,—no increase of heat in the vagina, no pain, and little or no scalding in making water.

With regard to the desideratum so much sought by all writers on this subject,—the distinction I mean between vaginal and uterine *leucorrhœa*,—although the observations I have made do not elucidate every case, yet they apply to a considerable class. In most cases of chronic vaginal *leucorrhœa* which I have satisfactorily made out, no increase of the discharge takes place before or after the recurrence of the menstrual flux; whereas in another and very large class of patients the discharge is doubled or trebled in quantity frequently before, but always after the catamenia, with an exacerbation of the general distress.

I think, too, that I have found the constitutional symptoms hereafter to be noticed mainly confined to this class.

The treatment, likewise, by astringent injections, which succeeds so well in vaginal *leucorrhœa*, almost invariably aggravates this form of disease, and in some cases caused a too early reappearance of the menses.

The above reasons appear to be sufficient ground at least for a distinction between the two classes of cases, and I think also for attributing the latter class to an affection of the mucous membrane lining the *uterus*. In these cases more relief was experienced from blisters to the loins, with rest, gentle laxatives, bitter infusions, and generous diet, than from any other treatment.

Vaginal *leucorrhœa* was treated principally by injections containing sulphate of zinc, alum, or super-acetate of lead, in considerable quantities.

I have also used injections with nitrate of silver; and, as far as my experience goes, I can safely affirm, that it is the best remedy we possess. I have scarcely met with a case of its failure when fairly tried. It caused no irritation, and the doses may be increased without fear.

I generally begin with a scruple once or twice a-day, and increase it to twenty-five or thirty grains, after two or three days.

Of disordered menstruation there were, of course, three varieties—*Amenorrhœa*, *Dysmenorrhœa*, and *Hemorrhagia*, with the irregular discharges which take place previous to the cessation of that excretion.

In several patients who suffered much, the *dysmenorrhœa* proved no bar to conception, contrary to the general statements of authors.

The first object in the treatment of *amenorrhœa* was, of course, to produce or recall the discharge;—in some we were successful, in others we failed. In addition to the cases related by Dr. Bardsley of Manchester, of the beneficial effects of *strychnine*, I have to record one to whom I gave it in doses of one-twelfth of a grain, increasing to one-eighth three times a-day. In the course of a week the discharge appeared, having been absent ten months previously. It has since recured naturally. In most cases there were symptoms present which precluded the use of this remedy. We tried aloes alone, and in combination with *assafœtida*, very extensively, and with great benefit. The menses often returned under its exhibition; and when they did not, the general health was improved.

The various preparations of iron were administered, and often with good effect.

Some cases, however, resisted every remedy that was tried.

The *dysmenorrhœa* was much relieved by the use of opium in grain-doses an hour or two before the expected attack and during the paroxysm. The addition of two or three grains of camphor is often used.

I found opium in large doses an excellent medicine in *hemorrhagia*. It often stops, or at least diminishes, the discharge, and is not attended with any inconvenience. Preparations of iron were of use, and frequently a blister to the loins.

In two most able lectures published by Dr. Addison, of the Borough Hospitals, London, he has described, with great accuracy and minuteness, a train of constitutional symptoms arising

from uterine irritation in *leucorrhœa*. In the investigation to which the perusal of his little work led me, I was struck with the great similarity of the symptoms resulting from long-continued *leucorrhœa* with those from disordered menstruation; and now, after noting down accurately upwards of ninety cases of the latter, and half that number of the former, I find them on comparison to present nearly the same aspect.

There are four symptoms common to both, which I have placed in the order of the frequency of their occurrence.

1. Pain of the head. 2. Deep-seated pain across the lower part of the back. 3. Pain under the left breast. 4. *Globus hystericus*, or a sense of tightness across the upper part of the *thorax*.

The pain in the head is often very severe,—sometimes accompanied with intolerance of light and sound, but very seldom with the same degree of general disturbance which a similar amount of pain from organic disease would occasion.

The pain in the back is deep-seated, and referred by the patient to some part midway between the *pubis* and *sacrum*.

The pain under the left *mamma* is often increased by a full inspiration, sometimes by pressure, but may be easily distinguished from thoracic disease by the stethoscope.

Other symptoms, such as disordered stomach and diarrhœa, occur sometimes, though much less frequently than those above described.

The tongue is seldom loaded, though often white. The pulse generally remains quiet, soft, and small.

If the original and originating affection be removed, these symptoms generally soon disappear; but when that is incurable, we have found considerable relief obtained by the use of aloes and *assafœtida*, with local irritation occasionally renewed. Many patients under this treatment have recovered a tolerable share of health. Other medicines may be given according to the state of the patient. Bitter infusions, air, and exercise, are often beneficial.

Under the term inflammation of the *cervix uteri*,—I do not include that inflammation of the glandular structure described by Sir C. M. Clarke, but inflammation of the substance of the *cervix*. The symptoms observed were, pain referred to the centre of the *pelvis*, a sense of weight, and sometimes a mucous discharge.

On examination, the *os uteri* was found rather

lower than natural, the *cervix* swollen, somewhat hard, hot, and tender to the touch.

In most it appeared as a chronic disease. The remedies most useful are bleeding, local and general, hip-baths, or tepid injections, with mild purgatives.

None of the cases were found obstinate.

The cases of irritable *uterus* resembled exactly the description of that disease by Dr. Gooch; and the treatment he recommends was found the best; long rest, with the occasional use of belladonna or hyoscyamus, attention being paid to the stomach and bowels at the same time.

The usual course of symptoms was observed in the cases of *cancer uteri*. Severe lancinating pains were felt in the pelvic region, extending downwards to the *anus* which the patients almost invariably attributed to piles, and a very foetid discharge of variable consistence and color, sometimes with hemorrhage, took place. On examination, the *pelvis* was more or less filled with a hard irregular mass, glueing together the *uterus* and *rectum*, with greater or less destruction of the *cervix uteri*.

Towards the termination in several cases the bladder became involved, and perforation of that viscus took place.

All these cases proved fatal. Nothing could be done but to afford transient relief to the most pressing symptoms. Hyoscyamus and opium in large doses sometimes alleviated the acute pain; and the distressing dyspepsia frequently yielded to a combination of blue-pill with rhubarb.

Great benefit was experienced from keeping the bowels in a state of moderate relaxation, as the pressure of hardened feces caused great torture.

Iodine was tried in some cases, but without more than the usual effect of improving the appetite and digestion.

The cases of puerperal fever were not numerous, nor, with one exception, were they severe. Most of them presented peritonitic characters, and were relieved by calomel and Dover's powder, with fomentations, &c. without blood-letting.

One of them, however, possessed much interest, as exhibiting well-marked *hysteritis*. She had been delivered by a midwife, and the day after exposed herself to cold—was immediately seized with shivering and pain in the belly. The *lochia* stopped.

When I saw her, the pain of the belly was

excessive and universal; she could not bear me to touch her; the tongue was foul and dry, with *sordes* about the teeth; pulse 130, small and hard; some thirst and headache.

I prescribed bleeding, fomentations, and gentle purgatives; and on my visit the following day, I was much surprised to find the general tenderness of the abdomen very much diminished, without a corresponding improvement in other particulars. I found now that she could bear slight pressure all over the belly. Just above the *pubis*, by careful manipulation, I could trace the rounded outline of the *fundus uteri*, and pressure over this part did not annoy her until I felt myself touching the *uterus*. If I now increased the pressure, she suffered acute pain.

I do not know whether this peculiarity has been remarked before. If it be generally the case, it will materially assist our diagnosis of *puerperal hysteritis* from *puerperal peritonitis*.

The patient continued to become worse, in spite of the prompt employment of the usual remedies, bleeding, calomel, blisters, &c. A slight discharge of puriform matter took place from the *vagina*, with no relief to the symptoms however. She suffered great pain in paroxysms. Pulse 110, small, weak, and sometimes intermitting; tongue dry and furred; and she appeared far too much exhausted for further depletion.

I saw, just at this time, Dr. William Stokes' excellent paper in the Dublin Journal on the Use of Opium, where antiphlogistics are precluded, and I determined to try it. I ordered, therefore, twelve pills, each containing one grain, and told the patient to take one whenever the paroxysms of pain recurred.

The most beneficial change resulted. In a few days the pain ceased, the pulse became slower and fuller, the tongue cleaner, and gradually the swollen *uterus* diminished in size. The patient is now perfectly well.

During the time she took the opium no other remedies were employed; and, when I prescribed it, she was apparently all but out of the reach of medicine.

Young women after their first confinement appear peculiarly subject to inflammation of the mammary gland, terminating in abscess. Whether or not this may be explained from the analogy of secretion with inflammation, as suggested, I think, by Meckel, future observations may determine. There is one very common fact, which would appear to support this view. Many cases

occur in which, after milk has been secreted, the breast continues to swell,—becomes hot, painful, and hard. The secretion is then suspended. Remove now the *excess* in the action going forward, the breast will be restored to its former state, and the secretion reappear.

To obtain this effect leeches may be necessary, or even a general bleeding, with fomentations and purgatives, combined with tartar-emetic in small doses.

When these means fail and abscess formed, it was generally allowed to break spontaneously. None of the cases were tedious. The wound speedily healed, leaving in some, however, a degree of hardness after it.

We did not find the patients more liable to subsequent attacks of abscess than those who had *not* previously suffered from it.

104, *Stephen's Green, Dublin.*

THERAPEUTICS.

Febrifuge properties of Salicine. BY M. RICHELLOT. (*Archives Générales de médecine, Septembre 1833.*) The bark of the white, crack and Huntingdon willow was long ago employed in the treatment of ague with various success; but its power over the disease appeared to be very questionable. The first chemists who analyzed it discovered in it no alkaline principle similar to quinine or cinchonine, and it gradually fell into disrepute. Fontana, however, maintained the existence of a certain febrifuge principle, to which he gave the name of *Salicine*. His opinion has since been corroborated by Buchner, Rigatelli, and Leroux, the last of whom was the first to employ it in France. Numerous trials were made of it in various quarters, and, of course, from possessing the charm of novelty, its praises were sounded in no ordinary tone. Doubts, however, continued to be entertained, which were confirmed by the result of some trials made at La Charité by M. Pelletier, by which it appeared, that in his hands, *salicine*, though very bitter, seemed to be far less active than the principle of the cinchonas.

Dr. Richelot mentions the trials made by various of its supporters, the results of which appear to be altogether negative, while other experiments tended to show that it is possessed of no obvious febrifuge power. The doses given in these experiments varied from six to twenty-four

grains. With the view of settling the question, M. Andral instituted several experiments, the particulars of which are recorded by M. Richelot. Ten patients of different sexes, whose ages varied from 17 to 38, were selected for the purpose, and, after considering the results of these, as well as all that has been mentioned by others, M. Richelot comes to these conclusions. 1st, *Salicine* appears really to possess febrifuge qualities, but in so small a degree that we ought not to hesitate a moment in preferring the sulphate of quinine. 2d, *Salicine* may be employed in any case where irritation or inflammation exists, contraindicating the employment of the sulphate of quinine, in hectic fevers with periodical paroxysms and abundant diarrhoea, or where sulphate of quinine cannot be had. 3d, It is not only unnecessary but injudicious to employ it at the beginning in high doses. Six or eight grains administered between the paroxysms on the same principles as sulphate of quinine produce as good or even better effects than higher doses, though, if necessary, the doses may be increased.

PHYSIOLOGY.

Anomalous position of the Larynx during Singing. By Dr. BENNATI. (*La Lancette Française, 15th October 1833.*) In a memoir read before the Academy of Sciences on 30th September, Dr. Bennati gave an account of an anomaly during singing, observable in M. Ivanoffs, a Russian, 23 years of age, and *tenor contraltino* at the Italian Theatre. His voice is a counter-tenor, which is capable of reaching the deepest *sol*, or an octave below the ordinary bass voice. The tone, during the utterance of this note, resembles the fictitious voice of ventriloquists. The larynx is placed anteriorly and superiorly, as occurs in the emission of ordinary sharp sounds. This prevents the position of the superior margins of the thyroid cartilage from being ascertained. The *genioglossi*, *basioglossi*, *geniohyoid* muscles, &c. as well as those of the jaws, are contracted to the utmost. It is remarkable, that during the utterance of notes belonging to the natural diapason of this individual, the mechanism is the same as that usually observed, but when he goes lower, which he can to the extent of a whole octave, the phenomenon mentioned above occurs.

MEDICAL SOCIETY OF LONDON.

Monday, December 16, 1833.

WILLIAM KINGDON, Esq. in the Chair.

Most extraordinary Case—A case in which a common Earthenware Egg-cup was found in the small Intestines.

MR. DENDY brought before the notice of the Society the following singular case:—A man, aged 60, came into Christchurch workhouse with scrotal hernia, which had existed thirty-five years, but was partially reducible. He had been for some time subject to repeated attacks of chronic diarrhœa and dysentery, and ten weeks previous to his death he had diffused peritonitis. About three weeks previous to that event he was seized with stercoraceous vomiting, and the taxis was applied, but was not perfectly successful, as a small tumor still remained, similar in appearance to a knuckle of intestine. The symptoms continued, and on the 4th of December he died.

About twelve hours after death, Mr. Dendy, in the presence of Mr. Stevens and Mr. Brown, proceeded to examine the body. The stomach appeared to have suffered from inflammation, and the pyloric orifice could be distended with the greatest facility; the small intestines were matted together, and their coats were so attenuated, that they formed a perfectly diaphanous membrane. The ileum was of a purple color, and marked in some places with little patches of ulceration; in the interior of this intestine, about ten inches from the ileo-colic valve, was found a common-sized earthenware egg-cup, resting upon the lumbar vertibræ, near the posterior superior part of the crest of the ilium; the mouth of the cup was in the direction onwards, towards the large intestines, and its interior was stained of a black color. No portion of intestine was found in the hernial sac, but there was a chocolate-colored fluid, similar in appearance to decomposed intestine in it. The ileo-colic valve was perfectly healthy, and of its natural size; and, although the colon and rectum were traced throughout their whole course, no marks of disease could be discovered; the cæcum was found full of scybala. The deceased had been much addicted to drinking, but had never exhibited any symptoms of insanity; nor did Mr. Dendy, from any part of the man's conduct, although he

had been under his observation some time, expect to find such a source of disease. He was of opinion that, from the healthy state of the large intestines and the valve, and the diseased condition of the smaller ones, that the cup must have passed by the mouth. The portion of intestine which had formed the hernia was below the cup.

Mr. Salmon could not think that this body had passed the pylorus; it would probably have suffocated the man. He had, however, seen many instances where patients had confessed to having passed foreign substances through the anus: it might by possibility pass the valve of the colon, but could not, in his opinion, pass by the mouth.

Mr. Stevens thought that if the cup had entered into the stomach, it might with facility pass the pyloric valve, which was so unusually large: the state of the intestine led him to suppose that it had passed in this way.

Mr. Hooper mentioned a case which occurred at St. Bartholomew's Hospital, in which a six-ounce bottle had been passed into the rectum. Mr. Lawrence was sent for, and on his arrival proceeded to dilate the anus with his fingers, and finally succeeded in extracting the foreign body.

Dr. Ryan remarked that if this man were subject to delirium tremens or melancholy, he considered it probable that he might have swallowed the egg-cup when his mind was much affected. He mentioned the circumstance of Gosse, of Geneva, having swallowed metallic balls of two inches and a half in diameter.

Mr. Headland made some remarks as to the fact, that the egg-cup was not acted on by the gastric fluid.

Dr. Severn observed that the cup was made of silex, which was not soluble in the strongest acids, and it was then glazed with cobalt with the same intention.

Mr. Kington said that he had seen a man nearly killed by swallowing a shilling, but that eventually it passed by the rectum.

Dr. Ryan, Mr. Hooper, Mr. Dendy, and Mr. Salmon mentioned cases in which farthings, halfpence, pence, and sovereigns were swallowed without having produced any bad effect.

Several other members spoke as to the probability or improbability of the cup having passed by the mouth, after which the Society adjourned until next Monday.

PORTUGUESE HOSPITAL REPORTS.

Gun-shot Wound of the Chest.—D. S., a major in the service of her Majesty Donna Maria, was shot through the left side of the chest in the sortie of the 24th of March. He was a man of about 32, of rather irregular habits, but of good general health. The ball (musket) entered the anterior and upper part of his chest, shattering the third rib near its sternal end, and made its exit close to the spine, to its left side, and in the region of the tenth rib, which it also fractured. Considerable hæmorrhage followed the infliction of the wound. During the ten days that he survived he suffered considerably from severe pain in his chest, great difficulty of breathing, and distressing cough and hiccups. Air rushed in and out through the exit of the ball with the contraction and dilatation of the chest. He was bled freely and repeatedly, and the antiphlogistic treatment in other respects was pursued to every warrantable extent.

The constant and great irritability of this patient, and my visits to him being those of a looker on only, I was obliged to refrain from any stethoscopic examination.

Autopsy six hours after death.—The ball had passed through the outer and lower part of the superior lobe of the lung, almost grazing the heart. In the upper part of the chest the pleura had contracted very strong adhesions. The cavity of the chest contained a good deal of matter mixed with blood. The substance of the lung and the pleura were highly inflamed. The ball in shattering the third rib had driven into the chest some portions of bone, which by their irritation had caused a deep cavity in the substance of the lung, near the entrance of the ball. There was no matter in this cavity, and it was large enough to contain half an ounce of liquid.

ST. BARTHOLOMEW'S HOSPITAL.

Gonorrhœa—Enlargement of the left Nympha—Nymphotomia.—A young woman, æt. 25, was admitted, under Mr. Lawrence, with gonorrhœal discharge and enlargement of the left nympha. The latter disease has existed for a long time, and has been a very great inconvenience to her. On Monday Mr. Lawrence removed the enlarged mass with a small knife. The patient seemed to suffer great pain, but her sufferings were short, as Mr. Lawrence removed the portion in six or seven seconds. On examination, it appeared highly vascular.

WESTMINSTER HOSPITAL.

Herpes.—In a case of herpes in a female, at present in the hospital, Mr. Guthrie has employed the acetate of copper, as an external application, with very decided success. This ointment was originally employed by an old woman, who, about thirty years ago, undertook to cure some very severe cases at that time in the hospital. Her treatment was completely successful, but she refused to divulge the nature of the ointment. It was, however, analysed, and found to be composed of acetate of copper. Ever since that period the acetate of copper has been applied in like cases with uniform success.

Burns—Application of Flour—Cure.—In two cases of burns (occurring in young children) which were lately admitted into the hospital, the application of flour has been attended with the most favorable results. Mr. White strongly recommends this mode of treatment, when the burn is not deeper than the cutis. The instantaneous good effects of dredging with flour are really surprising; on its application to the parts affected the pain is instantly removed, and the patient, from being in a state of agony, is completely free from uneasiness.

ST. GEORGE'S HOSPITAL.

Tumor of the Arm.—A man was admitted, several months since, with a tumor, of the size of a large egg, situated under the biceps muscle of the arm. It was moveable, and gave him no pain, with the exception of a slight feeling of numbness in the fingers of the hand of the same side. Handling the tumor gave him no pain, and the contraction of the biceps muscle over it tended somewhat to fix it. It was very carefully examined several times by the surgeons of the hospital, who gave it as their opinion, in conjunction with Mr. Brodie (under whose care the man was placed) that the tumor was of a malignant nature, and that extirpation was the only remedy that presented itself.

A few days after the last consultation on the case, the operation of removing it was performed by Mr. Brodie. An incision was made through the skin and cellular texture covering it, which were dissected off on each side with great care. In the course of the dissection, it was found to extend deeper in among the muscles than the external examination of it led the surgeons to believe. The trunk of a considerable nerve ran through the substance of the tu-

mor, which was divided, as were the fibres of the muscle in which the malignant structure was imbedded. Great care and minuteness of dissection were required in dissecting out the tumor to avoid wounding any of the large nerves and vessels running through the diseased cellular structure covering it. In the course of the operation, a large branch from the humeral artery was divided and immediately secured. The operation occupied about twenty minutes.

On examining the structure of the tumor, it was found to be of a nature between scirrhus and fungus hæmatodes. The man recovered from the effects of the operation without any bad consequences resulting, or any unfavorable symptoms showing themselves, and he left the hospital perfectly well. Some short time since, however, he again came back to the hospital with another tumor of an apparently similar nature to the former one, and situated nearly in the same situation. The former tumor having been found, on examination, to be of a malignant growth and structure, it was intimated to the patient, by Mr. Brodie, that the only way effectually to get rid of it was to amputate the arm at the shoulder-joint, to which the patient, we believe, consented, and the operation was to have been performed by Mr. Brodie, when the patient received a letter from his friends in the country, stating that "there was a clever doctor down their way who cured cancer and such like, and bade him come down and be cured likewise." The patient very naturally left the hospital to see what chance the bumpkin could give him, and we have not yet heard of the result.

Sloughing Sores of the Back.—Benefit of Dr. Arnott's Water Bed.—There is at present a man in Egremont Ward, who has been in the hospital for some time, with extensive sloughing sores about the back, sacrum, ilia, &c., and which have taken on a kind disposition to heal ever since he has been placed on one of Dr. Arnott's water beds. These beds are not, however, in very great repute at St. George's; one of them broke a short time since, and the patients who use them generally complain of the excessive dampness and diaphoresis which they cause. Mr. Brodie's opinion, too, is rather against their utility; the necessity of the changing the water frequently, and the undulatory motion which the water gives to the patient upon his moving over so slightly, are so many arguments, Mr. Brodie believes, against their practical utility. Whether

these considerations, however, be true or false, it is perfectly certain that this patient has improved greatly since he has been placed on a water bed.

Sloughing of the Penis, Scrotum, and neighboring parts—Death.

A man was brought into the hospital on Tuesday, December 10th, at half-past four P. M. under the care of Mr. Brodie (it being his accident week). When admitted he was in a low and extreme state of collapse: tongue tremulous, and covered with a black furry coat; face and extremities cold, and endued with a clammy perspiration; pulse small, quick, and thrilling, and scarcely to be felt. On examination, it was discovered that he had an extensive foul black sloughy ulcer of the scrotum, penis and neighboring parts, from which there had been considerable hæmorrhage. He was in such a low state of collapse, that no history of his case previous to his being brought to the hospital could be learnt, nor did the persons who brought him from Slaughter's Coffee-house appear to know any thing about him. He had been, we understood, in a declining state of health for some weeks previously, and had been under the care of some medical man, who must have most shamefully mismanaged him. Immediately on his admission he was put into a warm bed in Ratcliffe Ward, and wine, brandy, and other restoratives were given him.

Two hours after his admission his pulse could be more distinctly felt, his face and extremities, however, were still cold.

Dec. 11th. Died at half past nine A. M.

He had, we understood, been subject to stricture of the urethra for eight years, and the medical practitioner under whose care he was placed, had done nothing for the slough but poultice it.

MIDDLESEX HOSPITAL.

Hemiplegia.—The following cases of hemiplegia occurring in persons of a certain age, but not consequent upon apoplexy, will serve as an interesting chain of pathological facts to those already related in your excellent Journal. It will be observed that the principle features in these cases is the peculiar manner in which the disease arises. The individuals have, without any previous warning, found themselves all at once deprived of the use of one side of the body. The treatment adopted appears to have made but little way in improving the hemiplegic

state, another interesting point in the pathology of the disease. This would lead us to the inquiry as to how far there was disorganization of the structure of the brain, and the cause of such change if it existed. It does appear singular that the individuals alluded to should be struck powerless in one half the body, with their mental faculties unimpaired, and without the slightest warning of so serious a malady. I leave the subject here for the present, in the hopes that some of your correspondents may pursue this inquiry further.

John Walker, æt. 50, groom; brought to the Middlesex hospital under Dr. Wilson, January 1st.

Hemiplegia of the left side; the angle of the mouth is drawn to the right, and tongue pointing to the same; voice a little thick; a great want of expression in the features.

The sensation is perfect in the left arm and leg, but no motion; he complains of a pain, "like cramp," extending from the groin to the great toe of this side. These symptoms came on ten days ago. While talking to a friend he felt a slight numbness in the foot, which soon shot up to the face, extending along the whole left side of the body. He then felt a momentary giddiness, but never for an instant did he lose his senses. Pulse slow, labored. He has been bled, his mouth is sore, and he has had a blister to the back of the neck.

Such active measures having been adopted, the physician thought it better to prescribe the most simple remedies, and according ordered the haust. gentianæ c. aloes of the hospital three times a day. This was changed subsequently for the haust. iodinii.

He continued this treatment, more or less, till April 6, when the following note was made.

Improvement very slow and gradual; the face is less distorted; the leg he can move a little, but the arm is of no use to him. The improvement being so tardy, he was ordered to be electrified, from this he experienced more decided benefit, and left the hospital considerably improved, April 30.

This and the following case are strongly illustrative of the important fact which Dr. Graves, with his usual ability, pointed out to his class, viz. that disease may commence in the circumferential parts of the nervous system, and so extend to the nervous centres.

James Elton, æt. 49, admitted under Dr. Wil-

son, April 6th; he has been always healthy; two or three months ago, while at breakfast, he felt "something in his left foot;" on endeavoring to raise himself from the chair he found he was unable, for he staggered and nearly fell down in the attempt; he then exclaimed, "I have lost the use of my left side." No headache but after he found the side was powerless he felt a giddiness in his head which, however, did not for a moment suspend his mental faculties; he never had any fit; there is now complete hemiplegia of the left arm and leg; sensation not diminished, if anything increased. He has been cupped, bled, and purged. He was ordered calomel gr. iij. bis die.

20th. No improvement; gums affected with calomel; iodine was administered in place of the former treatment, and this afforded some relief, as appears by the note of May 9th. He is able now slightly to move the leg in bed; his arm also, but not so much as the leg. He got up three times last week; upon returning to bed he found the paralysed limbs much swollen; upon looking at them they presented the appearance of dropsical swelling, pitting on pressure. He is much altered in appearance, and looks older. There was nothing unusual in the further treatment, except that the dropsy was cured by the application of cabbage leaves as recommended by the French. Electricity was not employed in this case. The patient was discharged the latter end of June, much relieved, though not cured.

James Norman, æt. 47, admitted December 5th, under Dr. Watson, healthy in appearance.

Hemiplegia of the whole of the left side; sensation and temperature much diminished; the face is drawn to the right, and there is confusion in his speech. These symptoms were first observed yesterday, when he complained of a slight pain in the head; he took no heed of this, but upon rising from the chair upon which he was sitting, he found the left side powerless. V. S. ad $\frac{3}{4}$ xiv., et c. c. nuchæ ad $\frac{3}{4}$ x., before admission.

Habeat calomel, gr. ij. 4tis et emp. lyttæ nuchæ.

14th. A little improvement, the leg improves faster than the arm; has continued the pills latterly twice a day.

Liniment. camphoræ co. Lin. ammoniæ, æq. part. brachio infricand.

25th. He is now able to walk pretty well; arm considerably improved; gums not affected.

Jan. 1st, Discharge much relieved.

He visited the hospital as an out-patient, and February 10th the following note was made.

The use of the paralysed side has returned, but when he walks he exhibits great weakness of that arm and leg. Some pain in the head at times.

He continues a patient of the hospital at the present time, Nov. 21st. He is electrified twice a week, and still complains of weakness and stiffness of the left side.

Gun-shot Wound of the Chest—Ball lodged.

R. J., a young and healthy private soldier in the service of the Queen of Portugal, was wounded in the back, Nov. 17th. The ball (musket) entered through the middle of the left scapula and penetrated his chest, fracturing one of the ribs. The first few days the symptoms were those of high inflammation of the chest, great pain, cough, and fever, which symptoms were allayed considerably by large bleedings, the establishment of suppuration, &c. The discharge of matter from the wound became very abundant and continued so. Irritative fever came on, and in nine weeks he died.

I was not able to examine this patient with the stethoscope, from much the same circumstances as prevented my doing so in the last case.

Autopsy ten hours after death.—The cavity of the chest was quite full of purulent matter, and the lung collapsed to the size of one's fist. The lung did not appear to have been injured by any pieces of bone or the ball. The ball was found within the chest, in some degree imbedded in an intercostal space, about two inches below where it had entered.

Two slight Wounds of the Head producing Death, and rendering active a dormant Disease of the Liver.—M. K., a private in the service of the Queen Donna Maria, æt. 35, and of pretty good general health, was struck on the head in two places by an officer with the scabbard of his sword, who was punishing him for mutiny. This produced two wounds of the scalp, one on the left parietal bone and near its anterior superior angle, the other on the middle of the temporal arch. In the former wound a small artery was divided, which to suppress its bleeding re-

quired being tied. For the first nine days no symptom of an alarming kind showed itself; the wounds continued sluggish, with no tendency to heal; the patient complained only of little pain in his head, but was always very drowsy and absent in his mind. Sixth of January, ten days after he was struck, he had considerable fever of the low kind, great pain in his head, much drowsiness and inattention. To be purged with calomel and jalap, head to be shaved, and cold water to be constantly applied to it.

7th. Has had no sleep; is more feverish, drowsy, and absent; pain in his head more severe; bowels have been well purged. To have a saline draught ter in die; cold applications to be continued.

8th. Is worse to-day in every respect; skin is a little tinged with yellow; some pain on pressure in the region of the liver, none in the shoulder. To continue the cold application and draughts, and to take every two hours pil. hydrarg. gr. ij.

9th. Is quite insensible; pupils rather contracted; skin quite yellow. Continue the medicine.

10th. He expired this morning nine A. M.

Autopsy twelve hours after death.—In both wounds the bone was denuded to a very slight extent. The membranes of the brain were inflamed nearly throughout their whole extent. Between the dura mater and the bone, and opposite both wounds of the scalp, was a small quantity of pus, and also along the course of the left arter. mening. med., where the dura mater was ulcerated. Opposite the wound on the middle of the temporal arch there was matter contained between the dura and pia mater, and here the membrane was most highly diseased. The substance of the brain was healthy.

The liver was found greatly enlarged and inflamed. In its substance was a great number of tubercles, some of which were in a state of suppuration, others inflamed only, and a few to appearances were in a dormant state. The other viscera were in their natural condition.

NEW MOXAS.—M. Ferrari steeps some cotton in a saturated solution of chlorate of potass, and then divides it into cones of various sizes. This is very active. Dr. Jacobsen of Copenhagen dips bands of paper in a solution of chromate of potass. These burn slowly, and are approved of by many eminent French surgeons.—*Journal de Pharmacie*,

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, APRIL 16, 1834.

No. 20.

Case of Fractured Spine.—Middlesex Hospital Medical Society—The following case is one of great interest and importance, and stands alone, as far as I have been enabled to learn, in the annals of surgery. If similar cases have occurred, the mode of giving this publicity will, no doubt, bring them to light; and thus many valuable facts connected with the physiology of the nervous system in particular, may be given to the profession.

John Neagle, æt. 36, a laboring man, was working in a sewer, and the earth fell in upon him. Several cart-loads were removed before he could be extricated. When he was conveyed to the Middlesex Hospital, it was found that the spine was fractured about the eleventh or twelfth dorsal vertebra, the several ribs were fractured, the left humerus dislocated, and the left tibia and fibula broken in several places, implicating the ankle joint.

Complete paraplegia from the anterior superior spinous processes. There is no sensation in the lower extremities from these points, and the broken leg gave not the slightest pain. The man was placed upon the usual bed for such fractures, the leg was attended to in the ordinary manner, and the humerus reduced. It appeared to be much easier to dislocate this bone again than to reduce it, for the joint felt as if so much disturbed. The house-surgeon states, that even by a single circular motion, the head of the bone, when in the axilla, could be brought into the glenoid cavity, and it required no force to slip it under the pectoral muscle. This fact is noticed in order to show that there was considerable laceration about the joint.

The patient lived in this miserable condition for eighteen days, during which time the following symptoms were noted. During the first few

days there was constipation of the bowels; afterwards, and until his death, the fæces came away unconsciously. The catheter was of necessity employed twice a day, for the first ten days, when the urine dribbled away from him, and became highly ammoniacal. Acute pleuritis supervened in consequence of the injury which the chest sustained. There was never any pain in the fractured leg, the temperature of which was equal to that of the other. The man complained but little, but the countenance always betokened anguish, and his nights were passed without much rest. At length the constitution being worn out by the accumulation of disease, he gradually became more exhausted, and died eighteen days from the time of admission.

Post mortem inspection.—The spine was found fractured transversely at the twelfth dorsal vertebra; the fractured portions were displaced; the spinal cord was pressed upon, and bruised. It was also considerably softened, and some clear fluid found in the cavity about this spot. The arterial system of the whole medulla spinalis was much injected. The shoulder joint had become natural, the breaches made by the dislocation being quite repaired. The ribs also, fourteen of which were broken, were involved in processes of union. Small points of osseous matter were deposited around the fractures imbedded in the periosteum. Upon examining the leg it was found that no union had commenced. The periosteum was not thickened, neither were the integuments, and even the effused blood was not absorbed. It was the unanimous opinion of those who inspected the parts accurately, that they presented all the appearances of a recent fracture, viz. one which might have occurred only about two or three days. The fracture was very extensive, the tibia and fibula being broken

in seven or eight places, and, as was before stated, implicating the joint. Upon raising the leg vertically, the medullary matter oozed from the the gaping fracture in a fluid state, and the lamellated structure of the bone at this part was partially deficient, it was softened, and readily broke down. The lungs were found much compressed by fluid, and the pleura was considerably thickened, giving evidence that the most active pleurisy had been going on. The bladder was contracted, and its lining membrane highly vascular and inflamed. The kidneys were large and flabby, exhaling a strong ammoniacal odour when incised.

The foregoing case excited considerable interest among the gentlemen connected with the hospital, as might be expected, and it was brought forward for discussion at the Medical Society of the institution by one of its intelligent members. The debate occupied two evenings, and was conducted in a spirited and talented manner. The majority of the members were of opinion that the want of union in the leg depended upon the absence of nervous influence. This conclusion was arrived at in consequence of reparation going on so perfectly in the upper half of the body, which was in a natural state, while the injury in the lower half, which was in an unnatural state, exhibited no signs of the healing process. The bladder certainly was inflamed, and that viscus was in the lower half of the body, but the bladder had an exciting, irritating, fluid within, which will readily account for inflammation. The question naturally suggested itself, viz. whether any change would have gone on in the leg if blisters had been applied. They might have effected some good result, but this is merely a point of discussion. It was evident that the want of union could not be referred to constitutional debility, because the system was enabled to repair other injuries, and to set up an active inflammation in the chest.

Mr. Mayo was not disposed to agree with the opinions of the Society. He conceived that neither secretion nor the reparation of bones was influenced by the nervous system, and imagined that fracture of the spine would not impede the union of fractured tibia and fibula; consequently he attributed the want of union, if want of union there was, of which he was sceptical, to other causes, viz. to the irritation excited by the coagulum around the bone.

In reply to these observations, it was stated

that the effect of paralysis of the fifth pair of nerves was to render the conjunctiva and nostril dry, by suspending the natural secretions, and several cases of hemiplegia in the hospital were brought forward to show that if injuries or burns occur accidentally in the paralysed limbs, it takes months to repair them. One man with hemiplegia spilled some broth upon his arm, it vesicated, and left an unhealthy tedious sore, which was cured with the greatest difficulty; and a girl, with the same disease, had the paralysed foot burnt with the "foot warmer." This also caused a sore which was slow and tedious in its reparation.

THE TREATMENT OF ASIATIC CHOLERA AND CHRONIC DIARRHŒA, WITH ANTIMONY. TO WHICH IS APPENDED INSTRUCTIONS FOR THE GUIDANCE OF THE PUBLIC, THE MOST SIMPLE AND EFFICIENT, TO DIMINISH ITS MORTALITY. By J. LANGFORD, M. R. C. S., late Resident Surgeon and Superintendent of the Knott Mill Cholera Hospital, Manchester. 8vo. pp. 34, Ridgway, October, 1833.

WHEN the cholera was raging at Manchester last year, Mr. Stott, of that place, showed Mr. Langford a notice in the *Medico-Chirurgical Review*, of Dr. Reich's paper, published at Berlin; wherein Dr. R. details a very successful mode of treating cholera by tartrate of antimony. The practice was adopted by Mr. L. at the cholera hospital, and the present pamphlet is the result. Mr. Langford passes very slightly over the etiology and the pathology of the disease, of which, indeed, but little is known, in order that he may concentrate his remarks upon the treatment.

Our author divides the disease into three stages—in all of which he assumes the presence of serious evacuations—and arrested secretions, combined with the other usual symptoms of the malignant cholera, as necessary to constitute the Indian disease, so called.

"The first class or division—with the skin and tongue warm, and tolerable pulse.

The second class—the skin and tongue cool or icy cold, with feeble pulse.

And the third class—pulseless, and every symptom in an aggravated ratio."

By the numerical returns at the end of the pamphlet, we find that the first class was treated with great success by the antimonial plan,

and without any consecutive fever. Amongst the second class were many patients of low dissolute habits and emaciated constitutions, laboring under organic diseases of old standing, with much less chance of recovery, in fact, than many in the third class. In the third class there were seven individuals who had bloody stools.

The plan of treatment which our author has followed is the exhibition of small and repeated doses of tartarized antimony, aided by copious diluents, till full, efficient, and continual vomiting is produced—not by one solitary effort, but by gentle, continual means.

“In proceeding with this stage of my communication, I shall confine myself to the explanation of that plan of treatment which I have proposed, and which upon a numerical return I found decidedly to give the most satisfactory result, more particularly in that distressing and difficult period, the pulseless collapse. This plan consists in administering small and repeated doses of Tartarized Antimony,* aided by the most copious dilution. I order at least half a pint of toast and water, if preferred, or even common water, either tepid or cold, as may be most agreeable, to be given at one draught every ten minutes or quarter of an hour, to keep up full and efficient vomiting, taking care to avoid ineffectual retching. Some patients however have taken gallons in a few hours: no sooner is it swallowed, than it shortly returns, giving, as the patients invariably express, continual relief; as the gorged vessels of the venous system are for a time unloaded, and the sense of oppression at the epigastrium is diminished; and from the relief thus obtained, fluid is again and again demanded, affording us the opportunity of repeating this restorative process.

This continual operation of vomiting appears to me to be conducive to the following ends:—

To unload for a time the large internal vessels of the venous system, which during collapse are gorged with deteriorated blood, which blood is deprived of those functional powers usually attributed to its office. To call into action the diaphragm, by which the vitalizing influence of the respiratory functions are aroused. The heart

by the same operation is unloaded of its vitiated fluid, and the vascular action is frequently increased to the extent of producing a pulsation at the wrist, which before was imperceptible. An immediate change will be observed in the fluid ejected, in which FLOCCULI ARE NO LONGER TO BE SEEN, and the quantity ejected, which before was copious and exhausting, is now diminished, not exceeding in quantity the amount administered, indeed less—direct evidence of a specific change in the morbid action of the stomach. This is an important fact.

This amended action, when produced, will be observed to continue its course through the whole alimentary canal, the stools becoming thicker or more gruelly, although from the greater extent in the intestinal surface, the dejected fluids will require a longer period to give the same evidence of their improved condition. So that a double action is observable in this stage (collapse) to be the result, viz. a continual mechanical action which contributes to overcome the torpor of the vascular system, and the atony of all the functions requisite for the restoration of the animal economy, equalizing the balance of the circulation, arousing the nervous energy; and, secondly, having a specific effect most probably on the mucous membrane of the alimentary canal, causing a diminution of the excessive exudation; permitting, through these media, the conservative principles of the constitution to rally against the morbid impression, under which the nervous system is rendered torpid; and, through that system, all the functional derangements appear to have their origin.

The very character of the vomiting is changed; it is no longer the characteristic squirt, which appears to be the sole effort of the stomach, but it assumes a general muscular action decidedly remedial.”

In aid of these measures, our author has often applied, with advantage, cloths dipped in warm spirit of turpentine, over the thorax and abdomen, for the space of twenty minutes, and kept hot by towels. Frictions he considers as useless, or even prejudicial, exhausting the patient, without remedying the symptoms. The vomiting appears to relieve the cramps by diminishing the internal congestion, and more particularly, the author thinks, by allaying the morbid irritability of the intestinal canal. He continues the antimonial solution, every two hours, till the biliary and urinary secretions are restored. When bile is fully apparent in the ejected fluid, he gives an

* “Dissolve ten grains of tartarized antimony in seven and a half ounces of distilled water, with half an ounce of rectified spirit, of which give half an ounce every two hours. Toast and water ad libitum. Give no other remedy.”

enema of gruel, salt, and oil, together with a small dose of castor oil by the mouth.

“As the various functions are restored from the torpor of collapse, I view the operation of the antimonial in a different light; the system is now disposed to run into an excess of action, and be destructive by consecutive fever. May not the known powers of this medicine, by equalizing the circulation, now act upon a conservative principle, and thus avoid, as it does almost in toto, this consecutive stage? The remedy is by this time usually tolerated by the stomach; and the vomiting ceases.

I have seldom had to encounter consecutive fever; but in every case I have been enabled to arrest its progress. When there has been a long state of pulseless collapse, say for forty-eight hours, it is not to be wondered if there is some slight succeeding excess of action, even under this treatment. The usual absence of this consecutive stage, which is practically found as destructive as the stage of collapse, must give considerable weight and importance to this treatment.”

The return of secretion giving proof of the system passing into another state, great care is necessary to save the head. If the antimonial was not sufficient, aided by enemata, our author immediately applied leeches to the head.

The following is the result of ninety-four cases treated on the antimonial plan. In twenty-eight cases of class first, all recovered—out of thirty-six cases of class second, twenty five recovered and eleven died out of thirty cases, class third, eleven recovered and nineteen died. Total—sixty-four recoveries to thirty deaths. A letter from Mr. Ollier, and one from Mr. Stott, are appended, confirmatory of Mr. Langford's statements, and of the success of the antimonial treatment in their own hands. The following concise code of instructions, for the guidance of the non-professional public, concludes the brochure.

“No time should be lost in sending for medical aid.

This disease more frequently commences during the night, in a violent form, indicated by vomiting and purging, the severity of which is usually so overpowering, for the space of from one to four hours, as to bring the person immediately to a state of disease, too often both hopeless and irrecoverable. This form of disease cannot be mistaken.

I beg to press upon attention the high impor-

tance, and the great advantage of obviating the loss of time, which must pass, before aid can be had.

In nine cases out of ten, the patient has been laboring under the attack several hours, before medical aid is had recourse to, when the disease is found in an advanced stage.

The moment it is suspected to have appeared, by vomiting and purging, or either, take one-fourth part, or two tablespoonfuls of the following mixture, every two hours.

Tartarized Antimony, two and a half grains; Distilled Water, four ounces; Rectified Spirit, two drachms. This mixture to be kept ready in the house.

To aid this vomiting, drink half a pint of tepid water, every quarter of an hour, until medical aid arrives to direct its omission or continuance.

For children under seven, half the dose above named; and under two years of age, a teaspoonful. To be most particular in aiding the vomiting, by draughts of tepid water, or toast and water; if during the night, warm water cannot be had, drink cold.

By following these simple instructions, the prompt advantages derived, are, that an important remedial action is immediately produced; preserving the heat; relieving the cramps, if present; and checking the excessive purging, which otherwise would be going on; and too often, even in one hour, bring the person to that state, in which death makes sure of his victim.

I have generally averted the disease by this efficient and simple practice, if had recourse to without any delay, and restored the patient in a few hours. In others it has conducted to favorable issue.

The loss of life, by this early attention, being most insignificant, disarming at once this scourge of its dreadful mortality.

Again, I say, do not permit delay.

Use no other remedy; rigidly abstain from laudanum, brandy, and stimulants.”

We confess we attach considerable importance to this pamphlet, since we had an early prepossession in favor of emetics in cholera, from observation of its effects in driving the blood to the surface, and relieving internal congestion. If the reader will turn to page 276, Vol. XVI. of this series, he will see that the editor of this Journal proposed the plan of emetics, in a paper read at the Westminster Medical Society, on the 26th

November, 1831. The fifteenth proposition begins thus: "The first internal remedy which I propose, both in aid and in imitation of Nature, is a stimulant emetic, &c." *ut supra*.

We recommend in the strongest terms, to our professional brethren, a full and fair trial of the plan proposed by Mr. Langford.—*Medico-Chirurgical Review*.

CYNANCHE LARYNGEA.

UNDER this head, Mr. J. Hey Robertson has made some observations, and detailed a case which we shall briefly notice. This inflammation is certainly the most dangerous of all the phlegmasiæ, not even excepting carditis or meningitis. The dyspnœa is so distressing, that it ultimately amounts to suffocation, if not relieved. The recorded cases show a lamentable want of success, even where laryngotomy is performed. Bleeding is our sheet anchor, no doubt; but it often fails. Our author decidedly condemns it. This is going rather too far, we suspect. "From the œdema existing (says he) I should be inclined to infer an atonic state of the vessels of the part. We do not bleed with the hope of removing this elsewhere. To bleed, in effusion of the brain, is to produce more effusion." Now the state of the parts in laryngitis, is almost precisely the same as when boiling water has been taken in mistake. The œdema is the effect of inflammation; and although we may bleed too late in laryngitis, this is no reason why we should not bleed at all. When the effusion has gone to a certain extent, and suffocation is imminent, we fear that nothing but tracheotomy will save life. Mr. Robertson, however, has proposed a less herculean remedy—namely, the nitrate of silver, in a strong solution—40 to 60 grains in the ounce of water—applied freely by means of a small brush to the posterior fauces—between the arches—and as far down on the posterior of the throat, behind the uvula, as possible; but taking care that the solution do not reach the epiglottis.

Mr. R. relates the case of a young lady of very delicate constitution, who had neglected an inflammation of this kind, till the symptoms were very alarming. Only two alternatives presented themselves to Mr. R.—to arrest the mischief locally—or open the trachea. He immediately applied a solution of the nitrate (60 grains to the ounce) freely to the parts above-mentioned, which required three applications of

the pencil. After the second application, she recovered her voice. On the third application, some of the solution touched the epiglottis, followed by the most distressing efforts to cough and vomit. These subsided, and the recovery was rapid.

We see no objection to this remedy where the disease has got head, with or without bleeding.—*Glasgow Journal*, No. IV. N. Series.

UTERINE HÆMORRHAGE, FROM PLACENTAL PRESENTATION. By DR. J. MAXWELL.

Case. On the 25th of March, Dr. M. saw his patient, who had been flooding since the preceding day, followed by labor pains. The uterine contractions were easily recognized by the hand—but the patient herself was something unusual in the condition of the parts, as her pains had not the effect of carrying down the uterus. On trying a pain, no part of the uterus could be felt—but with the hand in the vagina, the os tinæ was found to be firm, and of a rounded figure—the cervix uteri by no means distended. A finger passed through the os uteri did not recognize any part of the child, nor of the placenta. The hæmorrhage was considerable. The tampon and other means were used. The hæmorrhage, however, continued, together with the pains, but without dilatation of the os tinæ, and the painful alternative presented itself, of seeing the patient die exhausted, or of attempting the delivery under circumstances the most unpromising. In company with a medical friend, the delivery was determined on. A decoction of the secale cornutum was prepared, and a glass of wine and seventy drops of laudanum were given. With immense difficulty, the hand was partially got within the os tinæ, when the placenta was discovered, lining that part of the uterus immediately above the contracted part. The fingers were pushed through it; and the liquor amnii was discharged. The feet of the child were seized, and easily brought down. The secale cornutum was now given, and the hand was withdrawn with considerable difficulty. Traction by the feet delivered the child, and the discharge afterwards was moderate. She had a good recovery.—*Medico-Chir. Review*.

RETROVERSIO UTERI.

Mr. CUNNINGHAM has related a case of this kind, in the October number of the *Glasgow*

Medical Journal, of which we shall here condense the chief features.

Case. Mrs. B., 13th July, 1833, stated that, for ten days previously, she had been afflicted with pains in the abdomen, extending down the thighs, with frequent and painful micturition—costive bowels, &c. She considered herself in the fourth month of pregnancy with her second child. Venesection, calomel and opium—cathartics.

Monday, 14th. I was hastily summoned to her bed-side; she had passed a dreadful night, with a constant bearing-down pain, and desire to evacuate the bowels, coming on in paroxysms, resembling the last expulsive efforts of parturition—the medicine exhibited the previous day had been ejected, and the vomiting continued the greater part of the night. I now began to fear that the real cause of these violent symptoms had not as yet been ascertained, and to satisfy myself whether abortion was not a threatened event, requested a vaginal examination. Immediately on introducing the finger, it was met by a large firm ball resembling the head of a full-grown foetus. I was for a while puzzled what to think: from the early month of uterogestation, even granting that abortion was being effected, the foetal head must have been much smaller than the tumor I now felt. This opinion was therefore instantly discarded. Polypimorbid structure—impacted faeces vaguely flitted through my mind, and for the moment I could come to no satisfactory conclusion. I then began to search for the os uteri, but it was nowhere to be found. On examining per rectum, the same globular ball was felt, but no faeces. An attempt to press the tumor up gave considerable pain, but had the effect of permitting the poor woman to void a considerable quantity of urine. Another fruitless search in quest of the os uteri determined me that this must be a case of retroversio uteri, and the first that had occurred in my practice.

On inquiry, she admitted that her former attendant (who, by the way, was not a regular licentiate) had submitted her to a similar examination, and only recommended the continuance of purgatives, which were regularly vomited, and the application of a blister to abdomen!

This woman's condition had now become exceedingly alarming; her strength was much exhausted, and unless something effective were speedily adopted, she would undoubtedly sink. It became a grave matter of consideration what

line of procedure to adopt. The long existence of severe inflammatory action rendered it highly probable that important adhesions had taken place, which would render attempts at replacement dangerous. I could not, however, satisfy myself that any measure short of this end would be productive of benefit. At this juncture I availed myself of the opinion of Dr. Davidson, who, after examination, agreed as to the nature of the malady, and also thought that replacement ought to be more cautiously attempted. Before proceeding to act upon this determination, I introduced the catheter with much difficulty, and drew off about a pint of very turbid urine. I again endeavored to get at the os uteri, and persuaded myself that I could feel its posterior lip high up over the symphysis pubis, but found it impossible to make it available in the operation, as had been done by Dr. Weir in a similar case.* Contenting myself with introducing the fingers of the right hand, I pressed them against the body of the uterus gently, but steadily, till it sensibly began to yield; withdrawing them, I now got the forefinger of the same hand attached to the os tincae, and tracted with it, while the thumb pressed against the body of the tumor, and thus with little difficulty, and almost no suffering to the patient; I succeeded completely in bringing the uterus into its original position. Although much exhausted and enfeebled, the woman expressed herself gratified at the accomplishment of our object, and thought herself relieved. A clyster was given through the course of the day, which produced some evacuation—the calomel and opium were continued in small doses, and the urine regularly drawn off.

Tuesday and Wednesday passed in a tolerably easy state, but the pulse never decreased in number, ranging about one hundred, and feeble. The bowels began to act without medicine.

Thursday an increase of abdominal pain took place, which was combated by a small bleeding, and the application of turpentine cloths.

Friday.—Parturient pains were established, and the foetus expelled after two or three hours' illness—placental separation tedious, but eventually brought away entire. There was little of no hæmorrhage, but the patient was now excessively exhausted, with a quick weak pulse, and hot skin. Much swelling of vulva, which remained till death.

Continued free from pain till the morning of

* Glasgow Medical Journal, Vol. I.

Saturday, when she suffered another return of pain—the belly was now much increased in size, and so tender that it could not be touched, the pulse weak and fluttering. On account of her debilitated sinking state, my only resource was the application of a blister. Anticipations of success, however, were so small, that I was not surprized at next visit to find an aggravation of symptoms. Vomiting was now incessant—the matter having the appearance of coffee-grounds—the little lochial discharge which continued had a very offensive odour—the belly continued to swell; flushings—hiccups—and other deadly symptoms, betokened an early termination to her sufferings.

On Sunday she expired, six days after replacement, and four after abortion.

Autopsy.—On making a section through the abdominal muscles, the omentum and peritoneal coat of intestines were found highly vascular. On carrying the section down towards the insertion of the recti muscles, and over the situation of the bladder, a quantity of urine escaped from a wound made by the scalpel. On examination, it was found that this organ had become distended, and formed extensive and firm adhesions to peritoneum lining the muscles of abdomen. About a pound of effused fluid, with large masses of coagulable lymph, was found in abdominal cavity. The uterus was *in situ*, and contracted to its natural size; its mouth dilated and flaccid. This was the only cavity examined.

There can be little doubt that peritoneal inflammation was here the cause of death. It is probable that a more early rectification of the malposition might have saved life. The case is important, and deserves reflection.

CASE OF THE DISCHARGE OF A DEAD FŒTUS FROM A FISTULOUS OPENING NEAR THE UMBILICUS.

A WOMAN was received into the Cork-st. Fever Hospital in 1828, with considerable enlargement of the abdomen. Her history, as far as it could be learned, was, that eight years before she had been in labor, which, after continuing for two days, suddenly ceased, and the child as she expressed herself, rose up into her stomach: no delivery followed. After remaining in bad health for about two years, she again experienced the symptoms of pregnancy, and gave birth to a child, which did not survive; but the former child still remained in the cavity of the belly, and

during its continuance there she bore three children, the last of whom lived. Ultimately a fistulous opening formed near the umbilicus, which was enlarged, and the original child removed; it was in a state of wonderful preservation, measured twenty two inches in length, and had attached to it about two feet of the umbilical cord.—*Medico-Chirurgical Review.*

OF THE FŒTUS BREATHING AND CRYING IN UTERO.

I WAS called up one night by an intelligent pupil in the hospital, who informed me, that a very strange sound was observed to come from a patient in labor, resembling exactly the whine of a child.

On going into the labor ward, I found the nurses and pupils surrounding a patient's couch with out-stretched necks, listening with greatest intensity and amazement; and on approaching within about six feet of the bed. I distinctly heard a low moaning whine, resembling the faint and painful cry of a delicate seven months child; this became more distinct the nearer I approached the patient, and there could be no doubt whatever, that it came from the abdomen of the woman on the couch, however produced. Still sceptical, I applied the stethoscope, when the fact was proved beyond a doubt, as not only the cry mentioned, but the labored respiration of the fœtus was perfectly audible. A vaginal examination was instituted, and the head was found presenting, but high in the pelvis. The parts were only partially dilated, although the membranes were ruptured, and the waters had drained off shortly before. This woman was not delivered for four hours, and the above phenomena were observed by several of the pupils, up to the time of the child's birth. This patient's name was Morell, the date of her delivery the 2d of December, 1830.

This case not only establishes a curious, we had almost said incredible fact, but in a medico-legal point of view, is of some importance, and shows in a striking manner the futility of some of the tests most depended on in child murder.—*Dr. Kennedy on Obstetric Auscultation.*

This case is very different from the absurd histories of fœtus crying in utero. So long as the head is in the uterus surrounded by the liquor amnii, this is impossible, but in Dr. K's work the head had extended the vagina, and the function of respiration had begun.—*Editor.*

DIFFERENCES BETWEEN THE PHYSIOLOGY OF THE FÆTAL, AND THAT OF THE PERFECT HEART.

THE highly-interesting experiments and observations of M. Merat (*Dict. des Sciences Médicales*, vol. v. p. 452) will, we conceive, account for this fact. They prove the comparatively more perfect inherent vitality of the heart; the more nearly the animal approaches the state of fœtal existence, and also its decreased dependence on the nervous system. From a number of experiments made by this gentleman on rabbits, the facts he arrived at were, that on the excision of the heart from the body in two animals, one 1 day old, and one 30 days old, the sensibility of the heart in the former for fourteen minutes, while that of the latter was only observed for one minute after its excision. He also found, that the gaping (*baillements*) of the heart in the first continued evident for twenty minutes, whilst in the last it continued only for one minute and a third. In addition to this, he observed, that the destruction of the lumbar portion of the spinal marrow, in the first days after birth, did not suffice to arrest the circulation, but that when twenty days or so had elapsed, this almost always arrested it.

The conclusions which we would draw from these interesting facts, are, that the heart's action in the fœtus, and of course the circulation, on the well being of which fœtal existence more immediately depends are much less under the influence or more independent of the brain and nervous system than are those in the adult or child. And this would appear to be another of those wise and beneficent provisions in our original conformation, with so many of which the animal structure abounds, as we know how much more precarious would be the life of the young, were a weak system, such as it is, subject to the effect which an acute and susceptible nervous organization would impart. How much more frequently would nature, by so gifting it, have frustrated her intentions expressed in the divine law, 'increase and multiply,' were the circulation in them to be easily checked by the functions of the brain and nervous system being impaired? And even, with this provision, do we not too often observe infants destroyed by the pressure on the head during the process of parturition?—*Ibid.*

ABNORMAL FLEXURE OF THE COLON.—DEATH.

A YOUNG lady, aged 19, had for several months suffered from repeated and very severe attacks of spasmodic pain in the bowels, accompanied with most obstinate costiveness. Her health gradually pined away, and at length she was confined constantly to her bed; the slightest motion, and even any sudden noise, caused burning and stabbing pains in the epigastrium, which sometimes lasted for several days at a time; the abdomen was neither hard, nor was it painful on pressure, unless this was forcible.

The alvine evacuations took place only every tenth or twelfth day, and then dreadful torments were always induced; no purgative remedy was of any avail. Her medical attendant subjected her to a course of animal magnetism for four months; her sufferings, we are told, were soothed, but her "flying life was not arrested"!!

Dissection Upon opening the abdomen, no viscus was seen but the great gut; it was greatly enlarged in size, and when traced, it exhibited three distinct curvatures in the following way: the right, or beginning portion of the colon, having first mounted upwards, dipped down into the pelvis behind the uterus; it then took a bend, and rose towards the left lumbar region, and again descended, as the colon descends, to terminate in the rectum. A quantity of hardened scybalous fæces was found in different parts of the bowel, and also in the rectum, which though not quite normal, was not much affected. The other viscera were tolerably healthy.

No probable cause could be assigned for this curious malformation of the colon.—*Graefe and Walther's Journal.*

Sir Antony Carlisle has a strange notion that erysipelas depends on a "*redundant acid.*" The following purgative is invariably prescribed, and it is said with remarkable success.

℞ *Pulv. Jalup*, ℥i.
Super Tart. Potass,
Sub carbon. Sodæ āā ℥ij.
Infus. Senna, ℥vi.

M.

We have furnished our readers with the *recipe* as it forms an excellent purgative, operating freely and speedily.

Congenital Umbilical Hernia.—Three cases have been treated in the hospital during the last year, and all with the ligature applied by means of the apparatus. They all recovered perfectly.

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, APRIL 23, 1834.

No. 21.

CASE OF WOUND OF THE GLUTEAL ARTERY.

By R. CARMICHAEL, Esq.*

MANY, if not most of us, remember the poetical description of the case of the leech-catcher, contained in the works of the late John Bell. That case was one of a terrible character, an incision of two feet in length—eight pounds of coagulated blood removed from the sac—and a deluge of fresh blood, followed by a loud whizzing noise and apparent extinction of the patient's life, constituting its faithful and its horrid features. The anatomist, relying on the seeming exactness of his science, has ventured to doubt and to dispute the sober reality of John Bell's statements, and a strong imagination has been thought to have lent its vivid coloring to the dull and diminutive objects of nature. The sceptic may feed his favorite passion with the modest and unobtrusive circumstances of the following case.

A young gentleman, aged 17, received accidentally in the right hip a wound with a pen-knife, which penetrated as far as the handle would permit. This was instantly followed by a gush of blood so strong as to dash against the contiguous wall of the chamber. The hæmorrhage was immediately arrested by a medical man.

Three days afterwards the patient imprudently rose from his bed and walked down stairs. He had scarcely returned to his room when he felt an acute pain in the hip immediately succeeded by tumefaction. This increased daily, and on the 19th of September of the present year, eleven days after the occurrence of the accident, Mr. Carmichael was requested to visit him.

"On examination I found the entire right hip considerably swollen and firm to the feel, the skin was slightly discolored, having somewhat the appearance that a bruise would present. The trochanter could scarcely be felt, so great was the tumefaction. On measuring the two hips, by passing a tape between the thighs to the anterior superior spinous process of the ileum of each, the affected hip measured two inches more than the sound one; the upper part of the thigh was also so much swollen, that its circumference measured more by an inch and a half than the other; the integuments were also discolored more or less even to the ham. The small cicatrix of the wound was situated about half an inch above the presumed situation of the upper margin of the ischiatic notch, where the gluteal artery emerges from the pelvis. No pulsation was evident to the eye, even on the most minute examination, but the strong pulsation of an aneurismal tumor was manifested to the ear by either immediate or mediate auscultation."

Mr. Carmichael very reasonably supposed from the preceding circumstances that the case was one of diffused aneurism from wound. He resolved to offer the patient the chance that general means could afford. He directed the abstraction of ten ounces of blood from the arm, draughts containing tincture of digitalis were given every sixth hour, a cold lotion was applied to the tumefied parts, and absolute rest in the recumbent position enjoined. This plan, with occasional opiates to meet pain and uneasiness, was persevered in during five days, but no benefit was derived; on the contrary, the tumefaction of the hip and entire limb was obviously increasing, and the state of the patient was so distressing, that even he himself became anxious for the operation, which was performed on the 24th of Sep-

* Dublin Journ. Nov. 1833.

tember, in the presence of Messrs. Colles, Adams, M^r Dowell, Hutton, Logan, and Doctor Brown. It would be difficult and unjust to abbreviate the already brief notes of this successful operation.

"The patient being placed upon a table, lying on his face, I commenced the operation by an incision five inches in length, commencing an inch below the superior posterior spinous process of the ileum, and about the same distance from the margin of the sacrum, and continued it in a line obliquely extending downwards to the trochanter major. The gluteus maximus and medius were then rapidly divided, or rather their fibres separated (as the incision ran in the direction of the fibres) to the same extent as that of the integuments. The coagulated blood forming the tumor then became apparent through the sac, or condensed cellular membrane with which it was covered. This was divided the whole extent of the incision by running a buttoned bistoury quickly along the finger introduced into the sac; and its contents, consisting of from one to two pounds of coagulated blood, were emptied rapidly out with both hands into a soup-plate, which it completely filled. A large jet of fresh blood instantly filled the cavity I had emptied, but the precise spot whence it came being perceived, I was enabled by pressure with the finger to prevent any farther effusion, while that which had been just poured out was removed by the sponge. It was obviously the trunk of the gluteal artery just as it debouches from the ischiatic notch, which had been wounded. I endeavored, but in vain, to secure the artery by means of the tenaculum. I had then recourse to a common needle of large size, and with this instrument was immediately successful in passing a ligature around the bleeding vessel, and of preventing all farther hæmorrhage. After having waited some little time, to ascertain if the artery was perfectly secured, lint was introduced to the bottom of the wound, as it was not likely that union by the first intention would take place between the walls of the extensive cavity which contained the coagulated blood. The patient was then put to bed, and an anodyne given to him."

On the third day the external dressings were removed. On the fourth, the greater part of the lint contained in the cavity came away, followed by a flow of matter of good quality. On the sixth, the remainder of the lint and the ligature were discharged. The report is closed on the sixteenth day, when the patient is said to be com-

pletely convalescent, and the wound rapidly healing.—*Medico-Chir. Review.*

DR. PATTERSON ON THE EFFECTS OF MAMMARY IRRITATION IN AMENORRŒA.

THE sympathy between the uterus and mammæ is familiar to practitioners, but their attention has been usually directed to the alterations produced in the condition of the latter, by the changes that occur in the state and in the functions of the former. The following facts would appear to prove that the influence of the one upon the other is reciprocal, and that the physician in acting upon the mammæ can exert some degree of power on the uterus.

Case 1. Mary Reardon, æt. 24 years, of moderately corpulent habit, was admitted into the Rathkeale Hospital on the 10th of August, 1832. She labored under slight synochial fever, which in a few days yielded to venesection and purgatives. On the 19th Aug. symptoms which were considered of a hysterical character presented themselves, with pain in the upper and outer part of the right side of the chest. For the latter affection a small sinapism was prescribed, but from inattention of the nurse, it was made so large that it covered a considerable portion of the mamma. The sinapism remained on for half an hour.

At the visit on the following morning the 20th August, Reardon complained that the right breast was exceedingly painful, the pain being very different in its character from that which she had before experienced. On examination, the whole side of the chest was found considerably swollen; there was slight diffused redness of the skin; and though the mamma itself was enlarged to four or five times its natural bulk, yet there was no circumscribed hardness, nor any tendency to suppurative inflammation.

On the 21st August, the right mamma and adjoining parts of the chest were found much more enlarged than they had been at the preceding visit. The left mamma and side of the thorax were unaffected, and it was announced by the nurse, that the catamenia had that morning appeared, and were then present in considerable quantity.

This discharge, which, as the patient stated, had been for two years and a half wholly suppressed, continued to flow for two days; then it began to decline, and with it the tumefaction of the mamma gradually disappeared.

The attention of Dr. Patterson was arrested by the agency apparently exerted by the sinapism placed upon the mamma, over the catamenial secretion. He tried the same means in the next case that was presented.

Case 2. Catharine Power, æt. 19, applied to Dr. Patterson, on the 14th Sept. 1832, complaining of headache, languor, loss of appetite, and inability to attend to her usual business, that of a servant. She stated that about the middle of April, the menstrual discharge being then present, she incautiously exposed herself to cold in washing clothes at a river. The catamenia then suddenly ceased, has not since returned, and from that period she had been constantly subject to ill-health. She had consulted different medical gentlemen, and taken a great variety of medicine with little advantage.

Dr. Patterson directed that the clavicular half of the right mamma should be covered with a sinapism. The consequence was that the whole right breast became much swollen, hot, and painful. The next morning the enlargement of the mamma was very much increased, the tumefaction having extended to the clavicle and axilla of the irritated side. There was no hard circumscribed or prominent tumor, but a painful diffuse elastic distention of the mammary gland and surrounding cellular substance. On that evening the catamenia appeared. They continued for two or three days, and in a week the girl was so well that Dr. Patterson discontinued his attendance.

Both patients have since continued to menstruate with regularity.

Dr. Patterson remarks with judgment and with candour, that it must not be supposed that mammary irritation is applicable to every form of amenorrhœa. He does more than admit the possibility of failure, he presents an instance. In order that the evidence may be laid before our readers, and that Dr. Patterson's laudible and uncommon candor may be fraught with as extensive benefit as he could wish, we shall adduce the unsuccessful as well as the favorable cases.

Case 3. Mary Fitzgibbon, æt. about 21 years, of spare habit, was affected with headache, and irregular dyspeptic symptoms. The headache permanent, with occasional aggravation; countenance and tongue chlorotic; mamma undeveloped. The menses had been scanty and irregular from the 16th to the 19th year of her

age, but during the last two years they have been totally suppressed. No apparent organic impediment.

A sinapism was first applied to one breast and afterwards a similar application was made to both breasts at the same time. But though the sinapisms produced their ordinary effects, considerable pain and cutaneous irritation, yet the enlargement of the mammae was very trifling, and there was no consequent uterine action.—*Dublin Journal.*

ASCITES APPARENTLY CURED, AFTER PARACENTESIS ABDOMINIS HAD BEEN PERFORMED TWELVE TIMES.

THE following fact, communicated by our friend Dr. Dickson, of Plymouth Hospital, is not undeserving of attention. The result can hardly be considered as determined; but so far as it has gone, it is highly satisfactory.

“Having lately had a case of ascites under my care, which has terminated in apparent recovery after the operation of paracentesis abdominis had been performed *twelve times*, it is presumed that the following brief notice of it will not be deemed undeserving of record.

When it is considered, out of the number of dropsical patients received into this hospital, how rarely the effusion is primary, and that it is usually consequent upon disease, generally far advanced, of one, and often more important organs, as the liver, spleen, kidneys, lungs, heart, &c., it necessarily follows that the operation of tapping seldom can be resorted to, with any expectation beyond that of its affording temporary relief. In the case of Lieutenant G—, R. N. aged 33, admitted with ascites on the 17th December last, there was little ground to authorize a more favorable conclusion; for there were evident enlargement and induration, both of the liver and spleen, the renal secretion was almost suspended, and the emaciation and debility were so considerable, that the measure in question was not adopted without my entertaining serious apprehensions of the result.

The operation, however, was borne better than was expected, and paracentesis abdominis was had recourse to twelve times, with increasing advantage, between the 29th of January and the 18th of July. The quantity of fluid abstracted, on each occasion except the last, by my friend Dr. Armstrong, being, upon an average, about twelve pints.

The medical treatment consisted chiefly of the frequent exhibition of hydragogue cathartics and the various diuretics, including the pyrola amulata, which, on many occasions, I have found to be very useful, but on others as inefficient—the internal and external use of mercury and of iodine, the diosma crenata, preparations of iron, and various other tonics, &c. But, as it would be impossible to give any analysis of a case which was under my care upwards of nine months, without entering into a long detail, suffice it to say, that his improvement latterly was so great, that when he was discharged for the benefit of change of air, on the 21st of September, he had scarcely required any medicine for several weeks; the kidneys were acting freely—he abdomen was reduced nearly to its natural size—the appetite was keen, and he was rapidly advancing in convalescence.

Dr. Good adduces a similar example from the *Common. Lit. Vrord*, 1735, of a person “cured after twelve operations;” and, in the present instance, it is not unreasonable to anticipate an equally favorable result, if my late patient acts with prudence; for, after the lapse of more than two months, I yesterday learned that he continued to improve in health and strength, and, in fine, considered himself quite recovered.

D. T. H. DICKSON.”

Medico-Chir. Review.

REMARKABLE CASE OF WOUNDED INTESTINE, WHICH OCCURRED IN THE PRACTICE OF J. D. DAVIDS, Surgeon, of Cowes.

[Extract of a Letter.]

Case. Dec. 11th, 1832. William Kemble, æt. 21, of spare habit, a butcher in Cowes, was gored in attempting to slaughter an ox without the precaution of making the animal fast. The accident happened two miles up the country, and he was brought to Cowes in a butcher's cart. I found him supported in a chair, vomiting, and in a state of great prostration. On removing his clothes, I found about six inches of small intestine protruding through a wound in the lower part of the abdomen, just above Poupart's ligament, and about an inch external to the abdominal ring. I had him placed in bed, and on examining the intestine which was strangulated, I found that it had been completely perforated by the horn, which entered it on one side and came out at the other, consequently making two aper-

tures, through which I could pass my finger with ease. No fæces had escaped, nor had there apparently been much hemorrhage. The lips of the wounds were everted, exposing the mucous coat of the intestine. I immediately brought the larger wound together with two sutures, and the smaller with one, *and cut the ends of the silk close to the knots.* I then attempted to return the gut, but found that impracticable; without dilating the external wound, which I did with a probe pointed bistoury to the extent of about half an inch towards the ilium. By that means I was enabled to replace it in the abdomen. The external wound was closed with sutures supported by strips of adhesive plaster, and the patient was now (4 o'clock, p. m.) left. I saw him again at five, and found that he had vomited several times during my absence; there was also great tenderness to the touch generally, over the abdomen, and some reaction had taken place. Twelve leeches were applied to the abdomen. *Nine o'clock.* Pain much relieved by the loss of blood. I left him for the night, with an injunction that nothing should be given him but barley water.

12th. Had been restless, and vomited several times during the night. There was a good deal of constitutional irritation, but no increase of pain in the abdomen. *G. opii. gr. j. hac nocte.*

13. Had a quieter night and vomited much less frequently; complained of tenesmus. An enema was administered composed of ol. ricini, \mathfrak{z} ij decoct. hordei, \mathfrak{z} v. with a view of emptying the rectum, which it did. *Repet. pilula.*

14th. Passed a tolerable night; vomited only once, but much annoyed with flatus. Enema repeated with the addition of infus. sennæ, \mathfrak{z} vj.; this brought away some fæces and grumous blood. *Repet. pilula.*

15th. Had another fair night; but complained of the bowels being painfully distended with flatus. Ol. ricini, \mathfrak{z} j. was given by the mouth in a little coffee and retained, which acted very satisfactorily on the bowels. Barley water had hitherto been his only sustenance; but to-day a little veal broth was allowed in addition. From this time, with the assistance of an opiate at night and an occasional aperient, he went on progressively mending till Christmas day, when he was induced to partake of some pheasant and mince pies for dinner. This indulgence was followed by excessive vomiting in the night of the 25th, and he was feverish and restless during the three succeeding days; however, attention to the bow-

els and abstemious diet, again brought him round, and he recovered from that period without the recurrence of any untoward symptom. A small abscess formed underneath the external wound, which discharged itself in due time, and the wound healed kindly by granulations. One of the sutures only made its way out through the wall of the abdomen; the other two I presume passed into the cavity of the intestine. There is a very considerable hernial tumor in the iliac region, rather above the seat of the wound, with, I conceive, adhesion of the intestine to the parietes of the abdomen; but it is attended with no inconvenience, as the man is able to undergo great fatigue, and is frequently to be seen riding saddleless on a rough trotting horse with impunity. He wears a truss with a broad pad for security, and he assures me now, Oct. 1833, that his health is perfectly unimpaired by the injury. —*Medico-Chir. Review.*

LIVERPOOL MEDICAL SOCIETY.

THE Liverpool Medical Society has met three times this present session in the Royal Institution Rooms. Dr. Baird had met with a most interesting and rather obscure case in private practice. An elderly gentleman of full habit was seized with a distressing urinary affection after some day or two of general indisposition. Urine at last dribbling away involuntarily. Pulse full, 108—(100) intermittent in one arm, which became cold—fingers blue and circulation ceased gradually from below upwards. Patient very restless—getting out and into bed continually. Sensation and motion but little impaired, and consciousness unimpaired till the last. The pulse was imperceptible in the arm as high as the axilla. The extremity was quite cold, and got *perfectly black*. (See P. S.) Death. No *autopsy* procured. Query, What was the nature of the local affection? This case gave rise to much speculative discussion. Some thought the local disease was a form of Pott's gangrene.—Others talked of ossification of inner coat of arteries—*spiculæ* being "perhaps" detached and plugging up the circulation, &c.: others thought the case explained by Dupuytren's cases of inflammation of the veins, &c. But perhaps the most probable supposition (in the absence of proof which dissection would have afforded) was, that hæmorrhage had occurred into the sheath of the ganglionic system of nerves presiding over the irritability and contractility of the

arteries of the limb: the pressure thence arising causing *apoplexy*, so to speak, of the extremity. Of course the rationalé of the local symptoms was based on Tiedemann and Gmelin's views, that the ganglia control and regulate the function of circulation.

The profession had a public meeting to-day, when resolutions were passed approving of the conduct of the late Aldesgate Street Dispensary officers.

I cannot allow this opportunity to pass without mentioning symptoms which again and again I have known to occur when the nitrate of silver pill was taken at bed-time. Towards morning (pill being taken at bed-time) the patient frequently complained of an odd sensation as if slight *effervescence* were taking place, *here and there*, along the alimentary conduit. Headache, too, generally was present in the morning, in such instances.—J. S. T.

P. S. In Dr. Baird's case I should have mentioned that "the extremity became quite cold and perfectly black," and that the old gentleman felt as if a *wet* glove was on his arm, which he continually attempted to strip off with his other hand.—*Medico-Chir. Review.*

CASE OF AMPUTATION IN AN INFANT SEVEN WEEKS OLD. By J. PAUL, M. D. Surgeon to Gray's Hospital, Elgin.

THE following case is remarkable on account of the tender age of the patient. We can only spare space for the naked facts of the case.

"A male child, seven weeks old, was brought to me by his parents in the month of September, with an enormous swelling of the right leg, which had all the characteristic marks of fungus hæmatodes. The swelling was soft and elastic, bulged out in various parts, and presented a livid hue at the most depending point, with enlarged cutaneous veins. At birth two tumors were observable, the one running into the other; the lower one was said to be about the size of a turkey's egg, and the other somewhat less. The child's health was tolerably good.

The whole leg being involved in the morbid action of the disease, nothing but amputation above the knee even required the consideration of a moment, and the patient being so young this alternative was deemed almost too desperate; at least some delay was thought prudent. The parents were therefore advised to take their child home, and return when the swelling burst.

They had not been at home many days when the swelling did burst, and so profuse was the hemorrhage that in less than one minute the infant was in a state of syncope, and for two days life appeared to be almost extinct, so much were the vital endowments depressed. The hemorrhage was controlled by pressure, and the little patient rallied after a few days.

He was admitted into *Gray's Hospital* on the 3d of October, and at this time, although not three weeks since I had seen him, it was manifest the disease was in progress. The swelling hung down from the malleolus internus on a line with the sole of the foot, and extended to the internal condyle of the femur. In the livid portion of the swelling ulceration had taken place, and a fungus, in appearance like brain, with portions of blood on its surface, had sprung up. It was two inches and a half in diameter, and the skin around its circumference, appeared red and inflamed. The circumference of the limb across the fungus was eleven inches and a half, and nine and a half close to the knee. No part of the tibia could be discovered except close to the ankle-joint; the fibula could be traced, but there was an immense covering of dense and elastic cellular texture over it. The child looked pale, and the discharges from his bowels were profuse and of a greenish color.

The following day, Oct. 4, with the assistance of Mr. William Robb and Mr. Robert Patterson, surgeons, and Mr. John Grigor, student in medicine, I amputated the limb above the knee, and used two lateral flaps. Scarcely a table-spoonful of blood was lost. About the same number of arteries as in the adult were secured, and whilst they were being secured the blood effused on the stump coagulated readily. The flaps were kept in apposition by means of stitches."

The child lived till the 2d of November, and then died of the consecutive fever, the stomach being entirely free from inflammation. We think Dr. Paul was justified, under the circumstances of the case, in performing the operation, and thus giving the little sufferer a chance, however small, of life.

REMARKABLE CASE OF PULMONARY ABSCESS,
UNPRECEDDED BY ANY SERIOUS SYMPTOMS.

[Communicated by J. A. ORE, Assist. Surg. 8th
Royal Irish Hussars.]

THOMAS GLYNN, aged 18. The subject of this case was one of those misguided people

known in the wilds of Connaught by the designation of "Terry Alts, or "White-feet." This lad, along with several others, having been engaged in incendiary acts, was arrested in the night of 19th March, 1831, and on being ordered to proceed along with the military escort to Gort, pleaded his inability to walk that distance, being six Irish miles; and was consequently left in his hut with a guard. On the following morning I was ordered to proceed and report on the state of his health and fitness to undertake the journey. On examination he was found to labor under *some difficulty of breathing*, attended with heat of surface and foul tongue; pulse about the natural standard, firm, and regular. He had a Burgundy-pitch plaster on his chest, recommended and supplied by *some St. John Long* in the neighborhood. On interrogating him by means of a policeman, as my patient neither understood or spoke English, he stated that he never had any serious illness, or was prevented following his daily pursuits as an agricultural laborer, and there was much evidence that he had been engaged in many similar acts to that for which he was taken up, requiring personal energy and stratagem in their execution. Considering the very equivocal circumstances of his case, his transmission in a cart was determined upon, and I accompanied him to Gort. On his arrival there, he complained of fatigue, and that there might be no lack of humanity, he was taken into a vacant ward of the Detachment Hospital and a sentry placed over him; a few days afterwards he became an approver, and from this period the difficulty of breathing became mitigated, and was unaccompanied with the slight febrile symptoms which previously existed: there was no cough during the whole period he was under observation. On the morning of the first of April, he was somewhat agitated at the thoughts of being about to be confronted as a witness against his quondam friends, and having eat breakfast, set out in a post-chaise, accompanied by a party of Hussars, for Galway, where the Assizes were then being held. About four miles from Gort, the sergeant of the party, not perceiving him sitting up in the carriage, opened the door and found him dead. On examining the body to ascertain the cause of death, it was discovered to have proceeded from the rupture of an abscess in the right lung, containing no less than *eight pints* of a greenish-yellow pus: the left lung was perfectly sound, healthy in its structure, and of natural appearance. The viscera of the

abdomen, pelvis, and head were more than usually healthy; the body was not emaciated; the external appearance or formation of the thorax gave no indication of such extensive disorganization as appeared on dissection. During the period he was under observation, he took merely some antimonial and purgative medicines.

The lung was removed quite entire, and after preparation forwarded to the Army Medical Museum at Chatham. This case is interesting as regards the enormous size of the abscess, unattended, from all that could be ascertained of the history of symptoms, by any indisposition of importance.—*Medico-Chirurgical Review*.

USE OF ACETAS PLUMBI IN SEVERAL PULMONARY AFFECTIONS.

Case 1. A woman, aged 32, of a phthisical constitution was laboring under the symptoms of general pyrexia, accompanied with frequent cough and purulent bloody expectoration. She had suffered a smart attack of pleuritis twelve months before, and from that time had become considerably emaciated. A small bleeding and the employment of sal ammoniac, with small doses of the tart. antimon. and an occasional powder of calomel, relieved the fever and dyspnœa; the sputa were now free of any blood, but became more and more purulent. I ordered her the acetas plumbi and opium (of each $\frac{1}{4}$ gr.) every eight hours, and in the course of eight days she was astonishingly improved. Under the use of a decoction of lichen and polygala amara (boiled together till a complete jelly is formed), she quite recovered her health.

Case 2. A man, aged 33, who had suffered repeatedly from attacks of pneumonia, was again laboring under its symptoms; they had lasted for seven days, when Dr. R. was called. By large bleedings and the use of nitre, combined with tart. antimon. in aqua lauro-cerasi, the inflammation was speedily arrested; but there remained a most copious expectoration, and the sputa were assuming a more purulent appearance. Pills, composed of the acetas plumbi and opium, were given with very marked benefit; the use of them was continued for six weeks, after which time the patient was entirely well.

Case 3. A child, five years old, had been treated by many different physicians for a phthisical irritation of the lungs, with repeated blis-

ters, leeches, and the use of digitalis. The little patient expectorated a vast quantity of sputa, when I ordered him the following—

℞. Sacchari saturni . . gr. ij.
Infus. digitalis.... unc. vj.
Laudani liquidi.... ℥j. Misce.

Capt. ʒij ad ʒiv. 6tâ vel 4tâ quâque horâ.

In three days the expectoration was greatly diminished, and the boy improved in other respects. He speedily was quite well.

Case 4. May 16th. B. W. aged 44, a professional musician, after exposure to cold, was seized with shiverings, followed by heat, with severe pain in the chest, laborious respiration, cough, and frothy discolored expectoration. Venesection to a pint, and repeated doses of nitre and antimony ordered.

16th. All the symptoms aggravated; blood exhibiting a thick buffy coat—venesection to be repeated. While the blood was flowing, he felt himself much relieved; but immediately afterwards all his distress returned; the frothy sputa were in enormous quantities, so that the patient could with difficulty expectorate—the mucous rattle was exceedingly loud, and the breathing was much oppressed. A grain of calomel, and three of the red sulphuret of antimony, were ordered to be given every two hours, and the refrigerant mixture to be continued.

Little or no relief, however, was procured; the gurgling and rattling in the chest were truly frightful—the sputa were still frothy and tinged with pure blood, and their expectoration was painful and distressing. The bleeding from the arm was repeated once more, in consequence of the blood having presented, on both occasions, a very thick and tough crust; but no advantage followed, and being now alarmed that the accumulation of the sputa in the air-cells, and that the co-existing infiltration of the substance of the lungs, might speedily suffocate the patient, I resolved to commence the use of the acetas plumbi and opium. Three grains of the salt were dissolved in six ozs. of cherry-laurel water, and half a drachm of laudanum added; a tablespoonful every three hours. In the evening the symptoms were already much relieved, the expectoration less, and more easy, and the pulse reduced to ninety beats. Occasional delirium occurred; but having observed frequently, in many formidable cases, that this symptom appeared on the supervention of a critical change,

I was rather pleased than distressed at its occurrence.

17th. Amendment has gone on progressively; delirium less frequent and continued—pectoral symptoms much more easy—breathing almost natural—pulse 75—skin perspiring comfortably.

The medicine being now discontinued for two days, a relapse of all the distress returned, cough, dyspnœa, difficult expectoration, and great anxiety; fortunately, by immediately resuming the medicine as before, the symptoms were once more subdued, and the cure was completed under the use of a jelly, prepared of lichen and the *polygala amara*.

Case 8. T. P. aged 40, was seized on the 22d Nov. with alternate heats and chills, with severe pain in the side, increased by full inspiration, and with a strangling cough, which returned freely in paroxysms of great violence; these paroxysms often lasting for a quarter of an hour at a time. The patient could lie only upon his back, and even in that posture was continually panting for breath. He was immediately bled from the arm, and a refrigerant nauseating mixture, with small doses of calomel, given frequently.

Under this treatment he went on improving, till the morning of the 24th, when he was found considerably worse; intolerable wandering pain, like the stabs of a knife through the chest,—cough harsh and very severe—skin parched and occasional delirium. A blister was applied to the chest, and a mixture with camphor, opium, and nitre ordered to be given every second hour. Although some relief was obtained from these means, the pneumonic symptoms were not satisfactorily subdued, till recourse was had to the *acetas plumbi*, with opium.

About a dozen other cases, similar in most respects to those which we have detailed, are brought forward by our author to confirm the good opinion which he has formed of the effects of lead, opium, and *digitalis* combined, in inflammatory affections of the lungs.

Few English readers will be inclined to be of as great faith as their German brother; still we must fairly admit, that as the sugar of lead is undeniably known to possess very considerable sanative powers in hæmoptysis, it is but probable that in pneumonia, bronchitis, and hectic irritation, it may have a certain range of efficacy.

Our author informs us that he is disposed to

believe that the remedy exerts its influence chiefly on the smaller and capillary vessels; and he therefore always premises bleeding and other depletory measures, in order that the morbidly increased action of the heart and larger arteries may be considerably reduced. He has derived very pleasing results from its administration in all cases where the quantity of sputa is very large; it seems to exert a direct astringent power on the mucous membrane of the bronchia.

In asthma, it has been also of great service, by relieving the distressing dyspnœa, and in facilitating the critical discharge from the lungs. A case of severe chronic cystitis is mentioned, where exceedingly good effects were obtained from its employment, after the ordinary treatment had utterly failed. Reasoning from analogy, he is led to anticipate the same advantages in sanguineous apoplexy, which is, in an especial manner, a disease of the arterial red blood capillaries. When there is a tendency to serous effusion, either in the brain, or into the substance of the lungs, the remedy is not to be employed; it is the “plastic,” and not the “exhaling,” action of the vessels, or to borrow the German phrase, it is the “*hypercrystallizatio animalis*,” which is under the control of lead.

[The late Dr. Rush, of Philadelphia, highly praised the use of *acetas plumbi* in menorrhagia, threatened abortion, &c. &c.]—*Rust's Magazin für die gesammte Heilkunde*.

TREATMENT OF VENEREAL CONDYLOMATA.

As a matter of course, the removal of these very troublesome excrescences must be varied according to their character and situation.—When they are pediculated, or even considerably projecting above the level of the surrounding parts, by far the most expeditious, and at the same time a very safe method of treatment, is excision with the knife or scissors. If our patient be alarmed at all cutting instruments, the ligature affords a sufficiently convenient substitute. But not unfrequently they are too flat and expanded for the employment of either mode. In such cases Plenck's lotion is one of the very best applications we can use.

℞. Hydrarg. muriat. corros. ʒj.

Camphoræ, ʒss.

Alcoholis, ʒj.

It is to be applied with a camel-hair pencil, once or twice a day.—*Rust's Magazine*.

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, MAY 7, 1834.

No. 22.

RE-VACCINATION IN THE PRUSSIAN ARMIES.

ABOUT two years ago, a very alarming epidemic of genuine small-pox appeared in different parts of Germany, and threatened to commit great devastation both in civil and in military life. Several regiments lost a number of men, and it was observed, that the disease affected chiefly the young soldiers and recruits who were at and between the years of 18 and 24.

It was therefore an object of army-policy to investigate the history of this epidemic with all possible attention and accuracy, and to endeavor to devise some means for the extirpation, and subsequent prevention of this desolating scourge, which if not arrested might often paralyze the very sinews of war.

The military physicians recommended that a general re-vaccination of all the recruits should be forthwith instituted, whether the marks of a previous vaccination were found on their arms, or not. The government ever attentive to the welfare, and efficiency of our armies, promptly acted upon the advice of the medical board. In 1831, when the small-pox epidemic broke out at Erfurt, two regiments of the 3d division were stationed there; 6020 in all were vaccinated at that time; and out of that number 2354, or more than a third, exhibited genuine cowpox vesicles.

In the 8th division 2784, were vaccinated, and of these, 925 proved to be quite susceptible to the virus.

During the following year, nearly a somewhat higher proportion was obtained; in one division, 1594 out of 3942, and in another, so many as 2535, out of 3234.

Now all must agree, that those individuals, in

whom the operation succeeded, were truly susceptible of the contagion of small-pox; the capability of receiving one poison being coincident with, and indicative of receiving the other; at least such is the prevailing opinion; and until it be contradicted by facts, it is a safe and feasible one. How great must therefore be the danger of such a fatal scourge as small-pox invading our armies, especially when regiments are crowded together in a narrow space, as is often the case during war!

Fortunately we have already proof that a preservative means, when properly and assiduously employed, exists in our own hands; at Erfurt it was found that not one of the re-vaccinated soldiers was seized with the contagion during the prevalence of the disease in that place.

We need no further proof of the utility of the official order.—*Russ's Magazin für die gesammte Heilkunde.*

CASE OF SUDDEN DEATH FROM ASPHYXIA DURING INTOXICATION.

A young beggar-woman went into a public house to buy tobacco. There were two men sitting in the room drinking brandy. They gave her a glassful, which she forthwith swallowed, and asked for more. She drank eleven in succession, and being now intoxicated she hobbled into the street, and there fell down quite insensible. In this state, her neighbors carried her home, and laid her on the floor. She now vomited several times, but did not recover her consciousness; and about midnight, nine hours after the debauchery, she died. It appears that no regular medical assistance was procured for

her; various means were used by the attendants, and among the rest, the liquor of pickled cabbages and the water of a "fosse d'aisance."* The authorities of the place ordered, that a diligent investigation of the case be immediately instituted. On examining the corpse, it was found to be that of a healthy young woman, apparently about 23 or 24 years of age. The mouth was crammed full with lentils.

Dissection. In the larynx, just beneath the rima glottidis, ten or twelve lentils lay, and on opening the trachea many more were found, mixed with a frothy discolored fluid. The right bronchus, where it sinks into the substance of the lungs, was completely stopped up with them; in the left bronchus there were none at all. The right lung was of an unusually dark color, and much black blood escaped from incisions into its substance—a few of the lentils had found their way into the small air tubes. The left lung was more healthy, although two or three lentils were found also in its substance. The heart and large vessels were normal in structure; but the blood was thinner than after a natural death, and its color was rather a blueish-black, or inky, than of the venous hue. The stomach was filled with lentil-pap, and there was a strong odour of brandy—the mucous coat was streaked with dark lines, and marbled here and there with red spots—the intestines and other viscera were moderately healthy. The encephalon was then attentively examined; but no abnormal appearance was detected.

The questions for inquiry now were, whether the death of this poor woman was solely and directly attributable to the quantity of brandy given to her; whether the filthy remedies administered, had any effect; or lastly whether the cause of death must be sought elsewhere, viz. in the obstruction of the air passages from the accumulated lentils. If the last-mentioned cause be admitted to be the true one (and medical men must be unanimous on this score,) then we have

* To form an idea of the popular domestic medicine of this district of Germany [Merzig] we may state, that it is a common practice to collect the dried excrement of dogs, and steep it in brandy;—this is a sovereign elixir for diseases. Dr. Chevalier mentions the case of a woman who was suffering from hæmorrhagia uteri, and to whom her nurse recommended some of her own vaginal discharge, as an effectual restorative. O mores Germanici!!!

to determine in what manner, had the lentils most probably been introduced into the larynx and trachea. To explain this, we have only to remember that the unfortunate woman had vomited or attempted to vomit repeatedly, during her excessive intoxication; part therefore of the egesta probably remained in the mouth and fauces, and upon the next violent inspiration, were sucked forcibly into the air tubes, which, as well as other organs had lost much of their irritability in the general coma; the horizontal position on her back, while it added to the difficulty of expelling the food from the mouth, favored the resorption of it into the trachea. Such appears to us to be the legitimate conclusion, both from the testimony of the witnesses, and from the appearances found on dissection; that the immediate and direct cause of death in this case, was the plugging up of a considerable portion of the air passages, by the introduced lentils, and that the more remote and original cause was the stupefying action of the brandy, which not only induced the vomiting, but at the same time rendered this act dangerous, and in the present instance, fatal.

To determine the criminality of those who wilfully intoxicate others, belongs not to the physician, but to the judge.—*Rust's Magazine.*

FACIAL HEMIPLEGIA—EXTERNAL USE OF PHOSPHORUS.

THE symptoms of this local palsy are well known; the mouth is drawn to the sound side, the eye is half-closed and weeping; the point of the nose is sometimes distorted, and the patient is often utterly incapable of moving the forehead, eyelids, and nostrils of the affected side; the motion of the eye-ball, however, remains perfect; and the saliva usually flows more profusely than in health; but part of the food, especially if it be liquid, is apt to escape from one corner of the mouth. The temperature of the palsied parts is often lower than that of the other half of the face. The general health may be quite unimpaired. This hemiprosopoplegia may happen at any period of life; but in childhood it is very rare. The following treatment was successful in three cases.

R. Phosphori, gr. vj.

Olei animalis æther, ʒiij.

M.

The palsied parts are to be rubbed with this embrocation three or four times daily. After it has been used for a day or two, several places

will become sore, and then form scabs or crusts, which gradually dry and fall off. The rubbing must be renewed a second time when the skin recovers its soundness; and in severe cases the operation requires a third repetition. Generally after the first dessication, the parts are found to have regained a slight power of motion, which increases more and more after the second and third rubbings. The use of the liniment causes very considerable pain, and a feeling of burning; but no evil effect has ever resulted from it.—*Hufeland's Journal*.

USE OF IODINE AGAINST SALIVATION.

EVERY medical man knows well how difficult, and yet how desirable a thing it is, to check a profuse salivation, whether it has been induced by mercury or not. Hufeland informs us that in iodine we possess the wished-for means. In seventeen cases it was employed with striking benefit; the severe smarting, the tumefaction of the glands about the mouth, and the profuse flow of spittle ceased after three or four days use of it; and the mercurial sores often healed up at the same time.

The dose usually given at first, was two grains in the course of the day; and it was increased to four grains, in the following formula.

℞. Iodini, gr. v., solve in
Spir. Vini, ℥ij.
Aquæ Cinamomi, ℥ijss.
Syrupi. ℥ss. M.

Half a table spoonful to be taken every six hours—the dose to be gradually increased.—*Ibid*.

LIGATURE OF THE SUBCLAVIAN ARTERY BELOW THE CLAVICLE.

A young man received a sword-thrust through the folds of the axilla, in a duel. The hæmorrhage was checked by compression, and in 8 days the wound was nearly healed; but now unfortunately the bleeding returned, and although restrained for the time, broke out afresh at different intervals. Professor Blasius of Hallé determined therefore to tie the subclavian artery, below the clavicle. The operation was performed on the 20th day after the accident; and although no particular difficulty was experienced in any of the steps, the patient had been so exhausted by the repeated losses of blood, that he died on the 2d day after. On dissection, the

axillary artery and vein were found uninjured; the source of the bleeding had been from the circumflexa humeri posterior, and circumflexa scapulæ, the wound having penetrated from behind, through the tendon of the latissimus dorsi, upwards and forwards. The subclavian artery, at the point of the ligature, was well secured.

Dr. B. very correctly condemns in severe terms the early treatment of this case. Why was the artery not laid bare at once, and a thread passed round it? No time should be lost upon such an occasion; the delay of even six, twelve, or eighteen hours may be most injurious; for if an inflammatory action, nay an inflammatory tendency be established around the wounded vessel, the risk of secondary hæmorrhage is tenfold increased. Dr. B. was called one evening to a young man, who had wounded his hand deeply in the morning; a bungling surgeon, who had seen the patient then, had crammed compresses and other trash into and upon the wound, a certain degree of inflammation had thereby already commenced, when Dr. B. applied the ligature; on the fourth day, the vessel had ulcerated; the bleeding returned; and a second operation was necessary. But should the wound heal partially at first, and the hæmorrhage not recur, till the sixteenth, eighteenth, or twentieth day after the accident, when suppuration had been established for some time, not only are the difficulties of securing the injured vessel greatly increased, but also, the chances of ulceration of its coats at the site of the ligature and consequent bleeding. The parts are much changed in their tissue, and are matted together, so that it is often not easy to distinguish between them; and moreover the artery is so glued to its sheath, &c. that it is scarcely possible to isolate it satisfactorily. Still, with all these disadvantages, the tying of the artery is much safer than the employment of any other styptic remedies; our prognosis however cannot be so favorable, as it would have been, after an earlier operation.—*Rust's Mag*.

USE OF TARTAR EMETIC IN CROUP.

Case 1. A child, three and a half years of age, was seized on the first of January, with the early symptoms of croup. On the third they had reached a formidable height; the shrill crowing noise during inspiration, the wide-expanded nostrils, the rapid heavings of the chest, the tossing and throwing back of the head to catch the

least breath of air, in company with violent pyrexia, at once attested the disease. Eight leeches to the throat were applied; a calomel powder given every hour or two, and a blister over the sternum.

5th. A similar treatment has been continued since last report; and under it the symptoms are much mitigated. Small doses of nitre, antimonial wine, and spiritus mindereri, to be given in the intervals between the calomel powders. Next day there was a relapse of all the alarming symptoms; the cough was frequent and strangling; the breathing laborious, shrill, and crowing, and the little patient was burned up with strong fever. Six leeches were ordered to the throat, and one of the following powders given every hour.

R. Sulphuret. Antimon. rubri, gr. i.

Florum zinci, gr. ij.

Calomelanos, gr. vj.

Misce, et in pulv. vj. divide.

But the alarming symptoms were not abated, and they threatened a speedy death by suffocation, if relief was not promptly afforded. Two grains of emetic tartar, and ten of ipecacuan powder were divided into three doses, of which one was given every half hour till free vomiting was induced. Although this effect was not obtained, the breathing had become easier, and the little patient was not so agitated. Whenever the cough came on, much frothy mucus was expectorated—the pulse was also reduced in frequency, and with the exception of the great exhaustion, the case promised to go on favorably. Under the use of mild demulcent and expectorant medicines, the little patient recovered rapidly.

Case 2. Dr. L. was summoned to a child aged $4\frac{1}{2}$ years, which had been laboring under the premonitory symptoms of croup for four days previously. The peculiar shrill piping sound of the inspiration, and the strangling cough, announced a case of the angina membranacea. Eight leeches were immediately applied to the front of the throat, and a powder consisting of calomel and Kermes mineral, given every hour. A blister was likewise put upon the neck. On the following day the child was found to be considerably relieved; but towards evening there was a relapse of all the very worst symptoms; and in consequence of the extreme exhaustion of the patient, a repetition of the bleeding was not deemed advisable; and the calomel, which had been pushed to the extent of twenty grains,

had already been found ineffectual. The powders of emetic tartar and of ipecacuan, ordered in the former cases, were therefore given. No vomiting nor purging however were induced by them; but the distress in breathing became greatly diminished when two had been taken; the pulse was less rapid, and a gentle perspiration bedewed the skin. The emetic powders were continued, but now at longer intervals; and a small dose of calomel was given occasionally. On the following day the little patient was greatly better; the sleep had been quiet and refreshing during the night, the breathing not much hurried, and the cough less frequent and looser at the same time. From this date, convalescence might be said to have been established.

It is worthy of notice that in both of the preceding cases the tartar emetic and ipecacuan induced scarcely any vomiting; they acted as antiphlogistics and expectorants.

The third case mentioned by Dr. L. is one of ordinary bronchitis occurring in a child twenty months old; the treatment consisted in leeching, and small doses of the antimonial and ipecacuan powder; the cure was speedy and complete.

The fourth case is one of cynanche trachealis. Nothing except leeching and the exhibition of repeated doses of the emetic powder was done: but the success was most satisfactory.

In these two last cases the medicine caused much more vomiting and also purging than in the two others. Of late years the preparations of antimony, and especially the tartrate, have been highly recommended in pneumonic and bronchitic cases; to these diseases we may add all inflammatory affections of the other parts of the respiratory system.

They are admirably well suited to the treatment of young children, in whom we find difficulty of employing a multitude of remedies which may be used by adults. With a few dozen of leeches, and a phial of ipecacuan and antimony powders, we may treat a host of diseases of the air passages, much more successfully than our neighbors, who are using remedies of every shape, consistence and color, which the tricky art of the pharmacopolist can prepare.—*Journ. der Pract. Heilkunde.*

PARALYSIS OF THE NERVES OF SEEING, HEARING, AND SMELLING—INTEGRITY OF THOSE OF TASTE AND OF TOUCH.

A young woman, 21 years of age, of a lym-

phatic temperament, was admitted on the tenth of March into the Hôtel Dieu.

As she was nearly quite deaf, and could not read, it was impossible to obtain any correct information of her malady. The physiognomy was motionless, the general attitude without animation, the eyes were fixed and prominent, and the speech was slow and difficult; she was constantly either complaining of a pain at the top of the head, or calling for food, or saying that she was in the family-way. Some symptoms of gastric irritation being present, a few leeches were applied to the epigastrium with relief. Her friends at this time informed the physician, that she had been afflicted with the headache for at least the six last years, accompanied with a gradual decay of hearing, and, of late, with a loss of the sense of smelling. The intellect did not seem to be directly impaired—the general sensibility of the skin of the face and head was entire—the voluntary muscles, also, of these parts were sound in their functions, but the sense of hearing was almost completely gone: the sight, which, upon admission into the hospital, was only much weakened, had since been lost, the pupils being dilated and motionless, and the conjunctiva, although evidently much inflamed and dry, from the cessation of the lacrymal discharge, scarce sensible to any mechanical irritation—the pituitary membrane, too, was robbed of its general and special sensibility. A probe, introduced into the nostrils, might be moved freely about, without any distress to the patient, and strong hartshorn did not, for the first few minutes, cause any sneezing; the sense of taste seemed to be unaffected. The intense cephalalgia increased daily in severity, the poor woman groaning continually and pressing her hands upon her head—at one time in a state of excitement, and the next moment in that of stupor or coma. After the lapse of another week, no decided change had appeared: the swelling and redness of the conjunctiva was, indeed, increased—the opacity of the corneæ greater at some points, and their texture more softened, near the junction with the sclerotic. On the third of May the patient miscarried, and died soon after from the profuse flooding.

Dissection. When the brain was taken out, the attention of the medical men was struck with the unusually large size of the cerebral nerves, which had been cut through. The meso-cephalon and the rachidian bulb were also much enlarged. The olfactory and optic nerves

did not present any lesion in any part of their course. The pathetic nerves, the motor oculi of the left side, and the hypoglossal and glosso-pharyngeal, were quite sound. All the other encephalic nerves exhibited signs of disease; they were increased to at least three times their ordinary size, and numerous small spheroidal tumors, two or three lines in diameter were developed in the interior of the nervous cords, or on their surface. Some of these masses were quite circumscribed, but not contained in any cyst; others were more irregular, and seemed to be formed of numerous minute granulations, deposited between the nervous filaments, which thus either were separated from each other or traversed the diseased substance. This was of a yellowish and opaque appearance, resembling what we see in partially-softened tuberculous matter. Most of the tumors were situated very near to the point of emergence of the nerves from the cerebral substance. These nerves, upon leaving the tuberculous mass, became suddenly diminished in size. The two motores oculorum proceeded from the summit of a conical mass resting on the pedunculi cerebri, whence the nerves arise. A similar appearance was found at the points of origin of the fifth cerebral nerves; the muscular portion of the right nerve appeared sound. On the left side, the tuberculous matter could be traced to the internal part of the Gasserian ganglion. A small tubercle was situated at the inferior part of the right sixth nerve, but the greater number of the filaments were above it, and did not seem affected. The seventh pair were diseased, from their origins to the internal auditory foramina. The right pneumogastric was in a similar state for the extent of an inch. The lungs of this patient did not exhibit any tuberculous deposits.

Remarks. If the description of the preceding case be altogether correct, some interesting physiological deductions might be gained. The opinion of Majendie as to the functions of the fifth pair is partly confirmed, and partly contradicted by the report. All the lesions of the organs of sight and smell, indicated by this great physiologist to be consequent on the injury of these nerves, existed in this case. M. Cruveilhier, indeed, who was present at the dissection, thought that he could perceive a small tubercle in one of the optic nerves; but the other examiners attributed the appearance in question to partial desiccation and exposure to the air of the cut surface, and, at all events, it was very indis-

ting. However that may be, we cannot refuse to admit, that the result of this case very beautifully corroborates the conclusion, that the fifth pair has a direct influence on the nutrition of the eye, and that, if it be not the immediate seat of the four special perceptive senses, it is at least intimately connected with the healthy development of their functions.

The most puzzling part of the symptomatology, is to account for the persistence of the sensibility and motility of the face, while the fifth and seventh pairs of nerves were so seriously involved; for, if any position respecting nervous physiology seems to be established by the phenomena of disease, it is that these two nerves preside over the above functions. Mr. Bell, who read a report upon the preceding case before the Anatomical Society of Paris, is of opinion, that the integrity of the functions was by no means so complete as is stated, for the very expression—"the physiognomy was motionless, the eyes fixed and projecting, and the attitude was inanimate," indicates that the energy of the seventh pair which has been actually called, *par excellence*, the nerve of physiognomy, was much affected. Moreover, it is quite possible that the fibres of the nerve might be surrounded with a diseased deposit, and yet have remained but little disorganized. This explanation may also account for the persistence of the sense of taste. It is more difficult to understand how the functions of digestion and respiration were unaffected, while the origin of the pneumogastric nerve was diseased.

The following case deserves to be recorded in connexion with the preceding.

A man received a severe blow just beneath the left suborbital foramen. He was stunned at the time, and, on recovering himself, it was found that there was complete hemiplegia of that side of the face, extending from the crown of the head to the base of the lower jaw. The nostril had lost its general and olfactory sensibility; one lateral half of the tongue was paralysed; the sight however was intact, but towards the twelfth day after the accident an ophthalmia, accompanied with dullness of the cornea, and the formation of an albuginous speck on its centre, supervened. The eye had from the first lost its general sensibility, so that it might be pricked without any distress to the patient; and the secretion of the tears had ceased. The mobility of the left side of the face was unaffected, but mastication could not be performed on this side. His teeth,

the patient said, had no strength, and the food distended the cheek, and required his fingers to push it to the other side. The hearing remained entire. From this report we observe, that nearly all the lesions which are caused by dividing the trigeminus nerve, were present in our case.—*Revue Medicale*.

CLINICAL LECTURE ON THE INJURY CAUSED BY TAKING BOILING WATER INTO THE MOUTH AND FAUCES.

[Delivered at Jervis-street Hospital, Dublin, 1833.]

By WILLIAM WALLACE, M.D., M.R.I.A., &c.

GENTLEMEN,—The subject to which I propose to direct your attention this morning, is the injury caused by taking boiling water into the mouth and fauces. I have selected this subject on the present occasion, because we have at this moment in hospital a very interesting case illustrative of it,—the case in which a few days ago I performed the operation of tracheotomy, and which has afforded in its results a good deal of gratification.

You are aware, that a habit prevails among the poor in this country, of giving their children drinks of cold water from the spout of a common tea-kettle, and in consequence of this practice, these little creatures not unfrequently attempt, when alone, to drink from the same utensil placed on, or recently taken off, the fire, with its contents in a state of ebullition, or approaching to it; hence the injury in question.

It is remarkable, that notwithstanding the frequency with which this accident occurs in this country (I have seen at least twelve cases of it), and for aught I know in others, there was not the slightest allusion to it in any medical writing, prior to the period (eleven years ago) at which I recommended for its relief, under urgent circumstances, the operation of tracheotomy. Since that period, however, the injury has been the subject of two or three essays. You will find one in the twelfth volume of the *Medico Chirurgical Transactions of London*, and another in the fourth volume of the *Dublin Hospital Reports*. For the former we are indebted to Dr. Marshall Hall, and for the latter to Dr. Burgess of Clonmel.

If a child grasp in its mouth the pipe of a kettle containing boiling water, with the intention of taking a drink, it is clear that the action of suction will cause a greater or smaller quantity

of water to enter the mouth. Now what will be the effect of this water of high temperature on the surfaces to which it is applied, and what the extent of surface to which it may be so applied? The examination of these questions will put you in possession of the injury of structure which this accident causes, and of the extent of that injury.

You know that when boiling water has been applied to the common integuments (and these bear the most striking resemblance to mucous surfaces, particularly at their origin, or where they are continuous with the skin), the consequence is, in general, a rapid production of large vesications. You are not however to suppose, notwithstanding the analogy which exists between the structure of the skin and mucous membranes, that such vesications are formed when the latter have been subjected to the action of water of a high temperature; for if any vesications do arise on these membranes from such a cause, they are of a very minute character, resembling small pearls, or the vesicles of eczema. Nor is it difficult to account for the difference in the result of the application of boiling water to mucous and cutaneous surfaces. The cuticle, when it exists in the former, is, you know, remarkable for its tenuity, if compared with that which invests the latter,—for its possessing a closer adhesion,—and also, probably, for being perforated by a greater number of foramina. To these circumstances, therefore, are we to attribute the peculiarity to which I have alluded. In proof of this, let me remind you of what occurs when a blister, or boiling water, has been applied to the hairy scalp. On such occasions, we never have large vesications produced. In fact, they are always minute or pearl like, and are uniformly ruptured before they arrive at the magnitude of a small pea, owing, no doubt, to the close adhesion of the cuticle of the scalp, to its thinness, and to the number of foramina with which it is perforated—causes precisely the same as those which prevent the formation of large vesications on mucous surfaces.

I would not, Gentlemen, have thought it necessary to direct your attention so particularly to this point, were it not to correct the supposition that exists, that large vesications are formed at the upper part of the larynx, in the cases to which we are alluding; that to those vesications the obstruction to respiration, which essentially constitutes the danger, is to be attributed, and that they may be broken down, and the danger-

ous symptoms removed, by the introduction and pressure of the finger. But the obstruction to breathing, and consequently the danger do not arise from the presence of either large or small vesications, so much as from œdema or submucous effusion, the result of the inflammatory action which quickly supervenes. Of this I am convinced from dissection. In fact, when you dissect such cases, you will seldom find even minute vesicles, but you will uniformly observe the mucous membranes to which the water may have been applied, to be wrinkled and thickened, and its subjacent cellular tissue infiltrated or œdematous. Remember, therefore, that the application of water of a high temperature to the mucous surfaces, causes minute visications, inflammatory action, and, subsequently, submucous effusion.

There is also an error prevailing with respect to the extent of surface injured on these occasions, against which I wish to guard you. It is supposed by many, and naturally so on a first view of the matter, that the boiling water gets into the stomach, and that the fatal symptoms are, at least in part, a consequence of inflammation of that organ. But, I have never observed, in those cases which I have had an opportunity of dissecting, that the inflammation extended beyond the upper part of the larynx and commencement of the œsophagus. Nor have we any difficulty in explaining this limitation of injury, when we reflect, that the muscles of the pharynx as well as the muscular tissue of the œsophagus are, most probably, thrown into such a spasmodic state by the stimulus of the water, as must prevent its passage into the stomach. Hence, if any vomiting occurs in these cases, we must rather refer it to the irritation of the fauces, and the sympathetic influence of this on the stomach, than attempt to explain it by supposing that the stomach has received any injury from the direct application of the boiling water.

It is remarkable that the alarming symptoms which follow this injury do not, in general, occur for a considerable time; that is, for some hours after the patient has attempted to swallow the boiling water. This may be explained by the fact which I have just mentioned,—the production of sub-mucous effusion by the resulting inflammatory action. No doubt, considerable pain of the lips, mouth and fauces, immediately succeeds the accident; but notwithstanding this, it generally happens that the young creature, exhausted by pain and crying, sinks into sleep, and

enjoys several hours of apparently tranquil repose, before the urgent symptoms commence. The child then awakes, suddenly, with a croupy difficulty of breathing, and from this period the disease makes rapid and fearful strides. Respiration becomes much obstructed; the muscular organs employed in this function labor with great violence, and the heaving of the chest and the contraction of the abdominal muscles are very remarkable. I have seen the muscles exerted to such a degree on these occasions, that there seemed a general convulsive state of the body, and, by the act of respiration, a depression formed at the root of the neck, immediately above the sternum, into which I could sink several fingers, and a similar one, of larger size, near the extremity of the xiphoid cartilage. This difficulty of respiration is generally attended by a peculiar noise, emanating from the larynx, and is quickly followed, if not accompanied, by increased rapidity of the circulation. Indeed, the pulse becomes so frequent, that it is difficult to count it. When these symptoms have lasted for a period, sometimes longer, sometimes shorter, a new train of phenomena attracts our notice. The little sufferer either becomes extremely restless; tosses and tumbles about, gasping for breath, the surface becoming more or less pale and cold, and the state of restlessness persisting until death puts a period to its agonies,—or the frequency of pulse and respiration is soon followed by such a state of insensibility, as would induce us to conclude that the brain was more or less engaged.

Now, the important question is, What are we to do in these cases? What should be our treatment? Upon this subject, Gentlemen, I can speak with a great deal of satisfaction, because I think I can now point out a mode of treatment which will, generally speaking, be successful. You are to remember that the principal source of danger arises from the obstruction to respiration, in consequence of inflammation and subsequent sub-mucous effusion in the glottis or upper part of the larynx; and if we can succeed in preventing this effusion, or in causing its rapid absorption, we shall be able to secure life to the individual.

Now, many of you are aware of the important agency of mercury in certain forms of inflammatory disease of the larynx, and the analogy which exists between these cases of scalded glottis (for, as I have above hinted, death arises on the latter occasions from the effects of inflam-

mation) induced me to consider whether mercury might not be beneficially employed in this injury. I have now tried this remedy in many cases, and I can state, that from its employment I have, in general, obtained the most satisfactory results. I believe I can scarcely afford you a more convincing proof of the value of this mode of treatment than by reading to you the notes of two cases, for which I am indebted to our present clinical clerk, Mr. Evers, a gentleman with whose zeal and acquirements you are all acquainted.

(To be continued.)

OCCASIONAL THICKNESS OF THE SAC IN FEMORAL HERNIA.

In a case lately operated upon by Dr. Angenstein, of Cologne, and reported in *Rust's Magazine* for January, 1833, the herniary sac was several lines in thickness, tough, and of a cartilaginous texture, and this character of the protruded peritoneum extended fairly within the crural aperture.

The surgeon, aware of the extreme rarity of such an occurrence, examined it most attentively, in order that he might be satisfied that it was the sac alone.

He deemed it proper to excise a considerable portion of it. The patient was a female, 52 years of age, of an exceedingly gouty constitution, and several arthritic tumors were scattered upon different parts of the body, behind the ears, on the sternum, &c.

Dr. A. attributes the thickened state of the body to an unusual tendency in the system to a deposition of matter. It is, however, right to mention that the hernia had existed 15 years, but had never been incarcerated.—*Rust's Mag.*

M. DUPUIS communicated to the Academy of Sciences, on the 15th of October last, a case of complete paralysis in the posterior members of a horse, produced by ramollescent of the spinal marrow, a contraction of the origin of the nerves, with discoloration and softening of the muscles, and general emaciation. This fact confirms the idea that the spinal marrow is independent of the brain.

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

Professor of Anatomy in Jefferson Medical College, Philadelphia.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, MAY 14, 1834.

No. 23.

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[Delivered at Jervis-street Hospital, Dublin,
1833.]

By WILLIAM WALLACE, M.D., M.R.I.A., &c.
(Concluded.)

CASE I. A boy, aged three years, drank boiling water from the pipe of a tea-kettle. He complained but little at the time, was put to bed, and slept soundly for two hours. (Thus you observe, that the violent symptoms did not come on in this case immediately after the injury.) He then awoke with obstructed breathing, and passed a sleepless unquiet night. When brought to the hospital in the morning (eleven hours after the accident) his eyes were fixed and staring, face pale, respiration 36 in a minute, accompanied by convulsive heaving of the chest, and a sonorous wheezing noise in the throat; pulse 140, and weak; extremities cold. When put to bed, he tossed incessantly from side to side, gasping as if he tried to escape from instant suffocation; would not permit his throat to be examined. (Here you have an instance of difficulty of respiration and rapidity of pulse, followed by one of the two series of symptoms which form the second train of phenomena—extreme restlessness.) Six leeches were applied over the larynx and trachea, and afterwards a blister to the upper part of the chest, with warm stimulating applications to the feet. Three grains of calomel were given immediately, and directed to be repeated every hour. About twelve o'clock, the mother of the child, thinking it was dying, took it away from the hospital, saying she would rather see it die at home. About four o'clock, p.m. on the same day, the child was visited at its own residence,

and was found considerably improved. The calomel had acted on its bowels, respiration was less impeded, pulse still very frequent, low, and weak. Eight o'clock, same afternoon, the bowels were again copiously moved, and the child was easier, but the mouth was not as yet affected. It was now directed that one-eighth of a grain of opium and three grains of calomel should be given every third hour. On the following morning, it was found that the child had slept well during the night; the breathing was much improved, the wheezing of the throat less; pulse 110; skin hot. The opium was omitted, and the calomel continued as before. At four o'clock on the same afternoon he was again visited. He had slept uninterruptedly since morning, and the bowels had been moved only once. The breath was evidently affected with the mercurial fetor, and the calomel was ordered to be discontinued; some jelly was given to the child. At eight o'clock on the following morning, fifty-eight hours after the accident, the child's breathing seemed perfectly natural; a draught of castor oil was now administered, and the same nutriment continued. On the next day the child was brought to the hospital, and exhibited to the pupils, who were quite astonished at its recovery, having seen it leave the hospital two days before, in an almost expiring condition.

CASE II. The second case, of which I have the notes before me, is that of a fine child, two years and a half old. On the evening of the 27th of August, she took a drink from the pipe of a tea-kettle, and was brought to the hospital three hours after the accident, with excessively laborious respiration, tossing her head, and struggling like one breathing an irrespirable gas, her lips purple, veins of the neck turgid; pulse not admitting of being counted; deglu-

tition impeded; constant singultus. Several leeches were applied to the neck, followed by stupes, and afterwards by the tartar-emetic solution. Some viscid fluid was spat up during the night, but there was no vomiting. Not appearing better on the next day, it was taken home, whither Mr. Evers followed it, and commenced the administration of calomel. The pulse was now, (7 o'clock p.m.) nearly 200; skin intensely hot; bowels confined: other symptoms as before. He directed that the child should have a warm-bath, a purgative injection, and two grains of calomel every hour. On the following morning at seven o'clock there was considerable improvement. The little patient had had some hours sleep during the latter part of the night; the bowels were once moved; respiration though still oppressed, was easier, and the pulse had fallen to 150. The calomel was directed to be continued as before. On the next morning it was found that the child had slept several hours; that the bowels had been well freed; that the breathing was nearly natural; pulse 130; skin moist; slight mercurial fetor on the breath. From this period the child got rapidly well, and exhibited no particular symptoms. Latterly the calomel had been given only every fourth hour.

Remarks on Treatment with Mercury.—Although I am convinced from extensive experience, of the safety and propriety of giving calomel in these urgent cases in the large doses I have mentioned, I am glad to be able to tell you, that that excellent physician FRANK, who holds the highest rank among clinical professors, recommends, in certain inflammatory affections of the larynx and trachea, so free a use of calomel as five grains at a dose, to infants of two years old, two or three times a day, or three grains every three hours.

You are not, however, I must caution you, to conclude, that because children bear calomel well, that they are also able to bear the employment of large doses of other medicines with safety. But you know how badly they bear opium or abstraction of blood. That calomel is easily borne by them in some chronic diseases, as well as in acute, those of you are able to testify, who have seen the case of a very young infant which is at present an out patient of this hospital. It was brought to me laboring under what I consider the venereal disease contracted in utero. The face was extremely de-

crepit, and covered with scaly crusts; the voice having a peculiar, husky, yet sharp sound; the nates and pudenda covered by numerous superficial ulcerations, and the infant, on the whole, appearing, as it were, in the jaws of death. I directed it to have one grain of calomel three times a day, and I endeavored, at the same time, to bring the nurse's system under the influence of mercury. The treatment agreed so well, that in seven or eight days, the crusts began to fall off the face, the ulcerations of the nates began to disappear, and the child's health became wonderfully improved. It is now nearly well. Here then is an instance of a child, only a few weeks old, taking one grain of calomel three times a day, and the mother subjected to the influence of the same remedy, which is not only borne easily, but with the most striking advantage. You must not, however, conclude from my practice of giving calomel thus freely under urgent circumstances, that I am an advocate for its employment in these young persons on ordinary occasions. On the contrary, I have the strongest objection to its frequent use in early life, and would never employ it, except when its use is imperiously demanded.

There are two other questions connected with this subject. In what time is the calomel likely to affect the system? and how long will it be necessary to continue it? Calomel does, I am convinced, often act on the system of a child in seven or eight hours, if given in the manner in which I have employed it in these cases. This is a point of great importance to bear in recollection, for if you have reason to think that the child is capable of surviving the injury for eight or ten hours, you have an opportunity of trying the effects of calomel. With respect to the length of time this remedy should be continued, it is various;—two, three, or four days, according to circumstances; and I think it will be a good general rule to continue its administration as long as there exists any obstruction to respiration.

While I recommend calomel in these strong terms, I beg of you to remember I do not interdict the *judicious* employment of other remedies; you may bleed, you may blister, give tartar-emetic, and endeavor to break down any vesications with the finger introduced into the fauces; but I repeat, that upon these alone I place no reliance.

Treatment when Calomel fails.—Tracheotomy.

—*Use of a Canula.*—But suppose that the symptoms of a case of scalded glottis are so alarming, that you are led to fear it may terminate in death long before the system can be affected by mercury; or suppose the calomel has been used, and it seems to have had no effect, what are you to do? Under such circumstances, I believe that all hopes of saving the patient's life depend on performing the operation of tracheotomy, nor should this be delayed too long. It is now, as I have already said, eleven years since I first performed this operation, and recommended its employment. Since that time other cases have been recorded in which the operation was performed, one by Dr. MARSHALL HALL and two by Dr. BURGESS of Clonmel. I have also to state, that the operation has been recently performed in this and in some of the other Dublin hospitals, with success, so that I may consider it as now established, that tracheotomy may be had recourse to in such cases, with a very fair prospect of a favorable result; indeed it is precisely a case suited to tracheotomy. The injury from the boiling water does not extend to the trachea; it only occupies, as I have already informed you, the upper part of the larynx and fauces, leaving the trachea uninjured, and hence, if we make an opening into the latter, respiration may be kept up by the artificial aperture, until the larynx is restored to its natural condition.

But though I strongly recommend the operation of tracheotomy in such cases, I must tell you that in children it is not an operation of very easy performance. From seeing it performed in the case of an adult, or on the dead subject, you might be led to conclude that it was very simple, but in the child this is not so; here it is different, and requires considerable caution. In the child the depth of the trachea from the surface is comparatively greater; it is also shorter and less developed; the thyroid and thymus glands are large; (I have seen one case in which the thymus gland was projected into the wound during the operation every time the child coughed;) and the space in which the operation can be performed is extremely limited. If you add to this the great restlessness of a child, and its incapability of moral restraint, you will have some conception of the difficulty of the operation, and you will not be surprised that the experienced PELLETEN should have found it to require so much caution and anatomical knowledge as to induce him to declare, that it should never

be attempted, unless by men of science, coolness and experience in operations. Let me not, however, discourage you; if you possess a perfect knowledge of the anatomy of the parts, and go through the different steps of the operation with caution, you need not fear the result.

CASE III. I shall now conclude the subject of this lecture by making a few remarks on the case of this child. (Here Dr. WALLACE introduced the little patient, a fine boy, apparently about two years of age.) I first saw this boy last Sunday week about eight o'clock in the morning. He was then lying in ward No. 4, apparently insensible to surrounding objects; his countenance pallid and somewhat swollen; his eyes turned up, and his eyelids half closed; his pulse very rapid, and his respiration, which was 48 in a minute, extremely labored, and accompanied by a wheezing rattle. The only muscles of his body which appeared to act were those of the abdomen and chest, but their action was extreme, and during every inspiration a remarkable depression was formed at the lower end of the sternum. Mark, gentlemen, these symptoms! They illustrate that variety of case, in which a state of insensibility rather than of restlessness succeeds the obstructed respiration. Upon making inquiry into the history of the case, I learned that the child had been brought into the hospital about twelve hours before I saw him, that is about eight o'clock of the preceding evening; that his respiration was then hurried and labored; that his pulse was rapid; that his mother who carried him, reported that he had a few hours before gone to a tea-kettle, which was on the fire, and containing water nearly or altogether boiling; that he had taken some of the water into his mouth, but that, in her opinion, he had not swallowed it; that he immediately drank some cold water with avidity; that she had afterwards given him several pieces of fresh butter, and made him swallow oil, and that after this he had vomited three or four times. I was further informed, that eighteen grains of calomel had been administered in divided doses during the night, and a blister applied to the front of his neck, which, however, had produced no effect on the skin, except a slight redness, with two or three small vesicles; and, lastly, that his state was becoming gradually more hopeless. Under these circumstances, in fact, the child appeared dying. I determined to make an opening into the trachea without a moment's delay, and thus give the little sufferer his only chance

of life. I, therefore, had him immediately placed on a table, with his shoulders elevated, and his head hanging a little backwards, with the light falling obliquely from above. Now standing to the right side, and in front of the child, I pinched up, with my left finger and thumb, at the anterior and lower part of the neck, a fold of integuments, about three-quarters of an inch broad. An assistant having taken hold of the other end of the fold, I divided it with the scalpel, in such a manner, that an incision was formed in the integuments of sufficient length (about an inch and a half) for the future steps of the operation, and situated exactly in the median line over the trachea and above the sternum. Let me remark, that I divided the integuments in the manner I have described, because I had found, in a former case, some difficulty, owing to the mobility of the parts in the neck and the restlessness of the child, in making the first incision in the proper manner, or exactly perpendicular, and in the median line. The division of the integuments exposed a stratum of adipose substance, seated in front of the trachea, and at the top of the sternum. This was next divided, and a thin fascia covering the sterno-larynxal muscles laid bare. Having now insinuated the point of a director into this membrane, and having divided it carefully, first downwards and then upwards, I laid aside the scalpel, and, with the end of the director, separated from each other, along the median line, the muscles covering the trachea, and gently pressed them to each side. The trachea being thus laid bare, I now introduced my finger into the wound, which was, at the bottom, about three-quarters of an inch long and an inch deep, to ascertain whether this tube was sufficiently exposed to sanction its being opened, and felt it under my finger exactly as you might expect the small denuded trachea of so young a child would feel. It was elastic, rolled under the finger, and felt so firm, and so free from pulsation, as to leave no doubt that it was bare. I now with a tenaculum (for I had no hook nor any instruments save those of a pocket-case) perforated the trachea in the middle of the space, and gently raised it on the tenaculum, so high as enabled me to excise a portion of it with a pair of scissors. Air immediately rushed out of the wound, and the blood in the bottom of it was raised in bubbles. It seemed, however, advisable to enlarge the opening, and this was quickly done in the same way as the first had been made. The child now respired

most freely through the wound, and instantly appeared much relieved, sat up, looked about, seemed to perform the muscular efforts of crying, but was unable to make any vocal sound. He was now carried to bed, drank with avidity some milk and water, and two grains of calomel were administered. I have to remark, that scarcely a teaspoonful of blood was effused during the operation, though I have no doubt that one or more very minute veins were touched with a scalpel, and also a pulpy reddish substance, which might have been either the lower edge of the thyroid or a lymphatic gland.

I have said that I directed two grains of calomel to be given. Let me explain to you why I continued this medicine after the child had been relieved by the operation. I need not inform you, that the operation could have but little effect in diminishing the inflammation excited in the glottis by the boiling water, nor will it be difficult for you to conceive, that if the inflammation continued, it might lead, notwithstanding the indisposition of mucous surfaces to the adhesive form of inflammation, to an effusion of lymph, and consequent union of the lips of the glottis. Now it is scarcely necessary to remark, that such an event might render it impossible for the child ever to respire through the larynx, and thus lead to the necessity of a permanent fistulous opening of the trachea for the support of respiration. How serious such a consequence as this would be I need not observe; nor is a contingency of this kind merely ideal, for there are cases on record, in which individuals who have undergone the operation of tracheotomy, have been obliged to keep for years a tube in the artificial opening in the trachea, and I am much inclined to believe it possible that this unpleasant consequence may have arisen, in some at least of these cases, from a preternatural union of the lips of the glottis. Hence in all cases which require an opening to be made into the trachea, we must continue our attention to the patient with the view of removing the morbid states which may have rendered the operation necessary, and of preventing such consequences as I have described. It is, therefore, with the object of removing as quickly as possible the diseased state of the glottis, that I am induced on these occasions to recommend mercury after the performance of tracheotomy.

I have just said that the child was put to bed much relieved by the operation; but I have now to remark to you that the relief was not progres-

sive; for having visited the child again before I left the hospital, perhaps three-quarters of an hour after the operation, I found that his respiration, though less labored, had become much more frequent, and that his pulse, although possessed of considerable force, had become more rapid; on the whole, he seemed not likely to survive. "To what can this be attributed?" said I to myself. "Is the child sinking from exhaustion, or has his respiration become less free?" The strength of his pulse led me to reject the former supposition, and, upon examining the wound, I was induced to form the opinion that his respiration was not so free through the opening in the trachea as it should be. There was, certainly, a perpendicular opening down to the trachea, but this seemed to be obstructed too much to allow of a sufficiently free passage for the air. The soft parts had become swollen, the muscles had approximated too closely on the median line, and there was some oozing from the surrounding parts, which clogged the opening in the trachea. The flame of a candle when brought to the wound, was only slightly bent by the current of air which passed in and out. In short, it seemed indispensable that the parts over the trachea should be separated from each other, so as to make the opening in this tube more free. I now sent off for this canula (Dr. WALLACE here showed the canula), which I had invented on a former occasion, for the purpose which I had now to fulfil, and from which I had then derived very great assistance. I have already told you that I had entered on the present operation on the moment, and that I had no instruments with me, except those of a pocket case, otherwise I should certainly have at first used this canula. I now, however, rejoice, that I had not employed it, for I was afforded, by the relief it gave the child, the strongest proof possible of its great utility in these cases. In fact, as soon as it was introduced into the wound, the child's breathing was very much relieved, and the current of air which then escaped from the trachea was sufficient to blow out the flame of a candle.

Before I proceed further, let me say a word respecting this little canula. You remark that it is about one inch long, that its pipe or area is of an oval form, measuring in its long axis three-quarters of an inch, and transversely about half an inch. The shoulder, which is about one-fourth of an inch broad, is perforated at each side by a small slit, while the extremity of the

instrument terminates by a blunt edge, which is slightly excavated from side to side. You prepare this instrument for use, by furnishing the slits, which are in its shoulder, with a bit of ribbon, and by arming the canula with a flange of adhesive plaster, attached in such a manner that the plaster shall be perforated by the canula, and that the shoulder of the latter shall lie on the former. To apply the instrument you pass it into the wound, so that its longitudinal diameter shall be parallel to the long axis of the trachea; that the edge of the canula, which is excavated from side to side, shall rest on the trachea, and in some measure grasp it; and that the shoulder of the canula shall, with the adhesive plaster, overlap the edge of the wound. You are then to fix the canula in its situation, partly by carrying the ribbon with which its eyes or slits are furnished behind the neck, where their ends are to be tied; and partly by causing the flange of adhesive plaster to adhere to the skin surrounding the wound. Should the instrument be too long for any particular case, the part which enters the wound may be shortened by arming the canula with two or more flanges of adhesive plaster, or of lint, which will have the effect of preventing the instrument from sinking too deeply into the wound.

This instrument you observe differs from the canula commonly used in this operation, in being much wider, much shorter, and when applied, in not entering the trachea, but in resting on, or grasping the external surface of that tube. Now the offices which it serves are these; it effectually keeps the wound in the trachea from being covered or obstructed by the parts which are naturally over it; it prevents any oozing of blood from the surface of the wound from entering the trachea; it, with the assistance of the adhesive plaster, completely covers the incised surfaces, and prevents their exposure to the air; and, lastly, it affords very great facility in removing the secretions of the trachea, which are always discharged with difficulty, and which are sometimes very abundant. This last is an office which you will find to be one of great importance. Thus, it frequently happens, that the patient is not able, whether from weakness of the respiratory muscles, or from viscosity of the discharge, to expel it outside the cavity formed by the wound of the superincumbent parts. Whenever this is the case, the moment the effort of expiration is over, the discharge which lies in the bottom of the wound is again, by inspiration,

drawn into the trachea, closes up, more or less, the opening in this tube, and irritates the parts so much, as to keep up a constant cough, or effort at expulsion.

I need not tell you the exhaustion and other evil consequences which must arise from this cause. Indeed, I find that Dr. Burgess has attributed the death of one of the two cases in which he operated, to the accumulation of the secretions of the trachea in the wound, and I have very little doubt that the same result would have happened in the very case we are now considering, had it not been for the care which was taken, and for the assistance afforded by this little instrument, which, by allowing of the easy introduction of a probe armed with lint or sponge down to the trachea, afforded an opportunity of removing the secretions as rapidly as they appeared. This office was intrusted to the father of the child, and I had great pleasure in observing the affectionate and persevering manner in which it was executed by him. For forty-eight hours after the operation he did not move from the bed of his child, and with the end of a probe armed with lint, and passed by the canula to the wound in the trachea, he removed the secretion as fast as it appeared. Indeed, for many hours, he found it necessary to pass the probe down at the termination of almost every expiration, to clear away the secretion, for he observed that if this were not done, even for one respiration, cough and irritation were produced by the return of the discharge into the trachea, the child being quite unable to expel it from the wound, partly owing to his exhaustion, partly to the depth of the wound, and partly to the viscosity of the discharge.

I shall not now detain you with an account of the daily reports of the case; you have, when you please, access to them; but I would beg of you to note in a particular manner, when you peruse the report, these facts—viz. that the canula, being no longer necessary, was removed on the second day after the operation, the superincumbent parts having then become so agglutinated, that the wound remained perfectly open, and all oozing of blood having ceased; that on the fifth day the calomel was omitted, the child being playful and free from alarming symptoms; that he began to respire by the natural passage on the same day; that on the sixth he was able to articulate some words; that the wound was closed with adhesive plaster on the seventh; that his voice was as perfect as before the operation

on the eighth, although a small probe could be then passed by a minute fistulous opening into the trachea; that the wound was perfectly healed on the tenth; and you remark that its situation is now scarcely to be observed, except for a slight depression which appears at the part; nor indeed is there any thing the matter with the child, save a very slight wheezing, audible when you attend closely to his breathing. This will probably continue for some days longer, and until it disappears entirely, we must closely watch our interesting little patient.—*Lancet*.

ENCYSTED HYDROPS OVARII.—SPONTANEOUS CURE.

Case 1. A young woman, 20 years of age, who had been married for three years, but had never been pregnant, applied to Mr. Burdach, in consequence of a large tumor in the left iliac region. She stated that soon after her marriage, she experienced smarting pains in that part, and since then, that the swelling had gradually developed itself, without causing much inconvenience.

One day, having exerted herself much to lift a heavy weight, she suddenly felt, as if something snapped and gave way in her belly; immediately a watery discharge flowed from the vagina, the tumor sunk down; and there has been no sign of its re-appearance, now for 18 months since the event happened. The woman's general health is good; but she has never yet been in the family-way.

Case 2. A case in many respects very similar to the preceding one, is detailed in the able memoir by Dr. Montgomery, reviewed in our present number. A woman separated from her husband, became affected with what was considered ovarian dropsy, and which enlarged the abdomen to the size of a six month's pregnancy; some of the other symptoms of this state were likewise present. After an attack of inflammation, during which it may be presumed, that the parietes of the tumor formed an adhesion with the upper part of the vagina, there took place suddenly a discharge of gelatinous fluid from that cavity, and the abdomen completely subsided in the course of a day; the previously entertained suspicion appeared to us to be confirmed beyond a doubt.

Case 3. The life of an innocent young wo-

man was once nearly sacrificed by an occurrence analogous to the preceding two cases.

She had a large swollen belly, as if she was several months gone with child; but this enlargement suddenly gave way to a profuse discharge of fœtid matter from the vagina.

Unfortunately for her, there were two foundlings, who had died from exposure, discovered about the same time; suspicions fell upon this woman, and she was actually condemned as the infanticide. By the humanity, however, of several surgeons and physicians, who accurately examined the case, she was afterwards acquitted and liberated.—*Cyclopedia of Prac. Med.*

CLINICAL LECTURES ON SURGERY, DELIVERED BY BARON DUPUYTREN, DURING THE SESSION OF 1833.

[Revised (before translation) by the Baron himself in the fasciculi of his "Leçons Orales de Clinique Chirurgicale," published periodicaly by G. Baillière, Paris.]

On Diffuse Phlegmon: its distinctive characters and treatment.—I have often spoken to you, gentlemen, in my lectures, of a species of phlegmon, to which nearly twenty years ago I gave the name of diffuse phlegmon, a designation since that time generally adopted by our surgeons. This affection, though of frequent occurrence, and often of a severe nature, has been completely overlooked by the greater number of authors; by some it has been confounded with the diseases complicating it, and it has been described by modern writers under the name of erysipelatous phlegmon, phlegmonous erysipelas, or traumatic erysipelas. Many authors have confounded it with phlebitis, inflammation of the lymphatic vessels, and various other affections. We have adopted the expression of diffuse phlegmon, to distinguish it from that species of phlegmon commonly called circumscribed. But what is the difference? It is only necessary to cast an eye on the phenomena presented by both affections, to render yourselves at once masters of the differential characters. Let us select an example of circumscribed phlegmon; you will see it at No. 12, in the Salle St. Martin.

CASE 1.—*Circumscribed Phlegmon of the thigh.*—This patient, after some violent effort, was seized with pain in the upper and inner part of

the thigh, followed immediately by redness, tumefaction, and tension of the part; these symptoms soon gave rise to symptomatic fever of a slight nature, and he presented himself at the hospital for reception. Having often remarked that slight excoriation of the leg or foot existing over the traject of the lymphatic vessels which pass up to the groin, has given rise to considerable inflammation. I was careful to examine those parts on my first visit; but finding nothing to which the existence of the inflammation could be attributed, I was compelled to admit an idiopathic phlegmon, that is, an inflammation developed under the influence of some local cause, whether external or internal, and strictly confined to the point of its existence. The skin was red, warm, tumefied, and tender, and the least pressure occasioned excessive pain; in fact, it was a perfect example of inflammation, as understood and described by the ancients. But you should observe, gentlemen, that in all inflammations the degree of the disease varies; that in some cases one or more symptoms of phlegmonous inflammation are altogether wanting; in internal latent inflammations, there is no pain; and in inflammation of a serous membrane, especially of the arachnoid, we find little or no tumefaction, if we except some slight tumefaction of the cellular tissue near the affected membrane. When the phlegmon is circumscribed within a small space, as in boils, anthrax, &c., the fever is local, and does not often give rise to general symptoms; but if it be extensive, occupying the arm-pit or ham, a symptomatic reaction is set up, and the fever becomes general. The latter phenomenon is not absolutely necessary for the diagnosis of an external phlegmon, but when the inflammation is confined to internal parts, the reaction throws great light on the subject, although we are not to conclude from its absence that no inflammation exists; for, as I have before remarked in chronic inflammation, there is often no fever at all, or it is so marked as to escape observation. While speaking of this febrile reaction, it may be useful to remind you, that a peculiar kind of fever, which we call traumatic, usually succeeds certain surgical operations, such as the amputation of a leg or a thigh, &c., on the third or fourth day: this reaction may be readily distinguished when simple and isolated, but the difficulty of diagnosis becomes exceedingly great when it is accompanied, as often happens, by some internal inflammation, as a pneumonia, hepatitis, &c. When this

internal inflammation does not produce any local pain, or is not disclosed by some well-marked symptoms, the skill of the medical attendant is at fault, and it becomes impossible to discover whether the fever depends on the operation, is produced by an internal inflammation, or is the result of both these causes acting together. It is true, that in a short time other symptoms appear, which reveal the existence of the internal affection, but then this disease is generally beyond the resources of our art. I have said enough, gentlemen, to make you acquainted with the principle character of circumscribed phlegmon. To determine those of the diffused species, I shall again select one of the numerous examples which you have seen in the hospital, and I shall then proceed to lay my ideas before you on the most important points of the subject.

CASE 2.—Diffuse Phlegmon of the Left Leg.
—D'Amiens, 68 years of age, a washer-woman, remarkably fat, falling, bruised her leg considerably, but without producing any external wound. The injured part was affected with slight pain, and a small circumscribed spot of redness made its appearance; these symptoms soon increased in severity; the whole leg became tumefied, constitutional fever set in, and the patient was brought to the hospital twenty days after the occurrence of the accident. At this period, the limb had acquired a very considerable size, the inflammation was violent, and the epidermis detached in several points; a dark eschar, two inches in extent, occupied the inner surface of the leg, at the junction of the middle with the lower third, round which, as well as at several other joints, was felt a manifest fluctuation. The eschar was divided and the abscess opened, giving exit to a considerable quantity of sanious fetid pus. A second opening was made above, which also discharged the same kind of fluid: when the soft parts were compressed, we could not notice any communication between the two abscesses. The limb was dressed and placed upon pillows. The patient was bled to a few ounces, and ordered a lavement, as she had been costive for several days. As she found herself somewhat improved in the morning, a warm-bath was administered; the eschar became detached on the fourth day, and formed a large opening, from which a great quantity of putrid pus was discharged. On the fifth day the disease became aggravated, and soon extended to the

greater part of the limb, in spite of the frequent application of leeches.

In other legions of the body diffused erysipelatous inflammation often terminates in resolution, but in the extremities suppuration always succeeds the phlegmon, and it is a very dangerous termination, for the cellular tissue becomes destroyed, by the manner in which the pus is disseminated through the various cells; hence, when suppuration sets in, the gangrenous cellular tissue is detached in large masses. I have often extracted a portion, at least half a foot in length. At this period the pus becomes evacuated, but other phenomena appear; the thinned skin, being deprived of all nutrition, becomes blue-colored, and soon dies, not through the effect of inflammation, but simply from want of nutriment. This consecutive gangrene of the skin is often seen in the lower extremities, especially the leg, where the nutritious arteries, the anterior and posterior tibial, and the fibular, being lodged deeply in the cellular tissue, communicate only with the skin by some delicate ramifications. This consecutive gangrene, gentlemen, is very seldom seen on the head. Although diffused phlegmon often exists in that region, yet its arteries are disposed in a very different manner; the temporal, frontal, and occipital arteries, situated between the skin and facia, are so intimately united to the former, that it is not easy to separate them even in dissection. When inflammation attacks this region, it is constantly found to exist between the aponeurosis and pericranium. When suppuration takes place, if it be confined to the cellular tissue and has not injured the pericranium, the patient may recover; but its operation is mortal when the pericranium has been exposed or is injured. The integument, however, escapes injury, because the arteries continue to bring sufficient nutrient matter. Even if the whole cellular tissue which envelops the head were to be destroyed, the arterial communications, with the skin, would still remain. I can bring to mind only one case, which we saw about two years ago, where the skin as well as the cellular tissue became gangrenous.

(To be continued.)

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, MAY 28, 1834.

No. 25.

CONTINUANCE OF LIFE IN A NEW-BORN INFANT, IN WHICH THE BRAIN HAD BEEN DESTROYED BY CRANIOTOMY.

THE mother had been delivered by the operation of embryulsiou, two years before; the conjugate diameter of the pelvis being only 2 1-2 inches. The head having been perforated with the scissors, the two parietal bones were extracted, and the whole of the encephalon removed; the child was easily brought down and drawn out with the fingers. While the accoucher was engaged with his patient, and waiting the expulsion of the placenta, he was surprised to hear a whining noise proceed from the child, which had been wrapped up in a napkin, and laid aside in the corner of the room. At first he thought it must be a mistake on his part, and paid no attention to it; but in two or three minutes the sound was repeated; and now upon opening the towel, he found that the mutilated child breathed feebly, and even moved its hands and feet; and once more gave out a whimpering cry. These phenomena were observed for a few minutes and then ceased altogether.—*Hufeland's Journal*.

We publish, in the present number, a Review of the interesting work of "Dr. Beaumont on Digestion." We have had it on file for some-time, and we have to apologise to our readers for it not having sooner made its appearance. Since it has been received, an application has been made to Congress to remunerate its author for the great expense he has incurred, in prosecuting the experiments and investigation. We regret, however, to say, that the motion for remuneration has been negatived.

Our legislators, unfortunately, seem to think that the public money ought not to be expended in the promotion of science. No case can ever occur more deserving of public patronage. A gentleman, at great personal expense, has devoted himself most zealously to the investigation of facts of the highest interest to the health and comfort of mankind; an application has been made not to reward him for his trouble, but merely to repay him for expenses incurred in the investigation, and the application has failed. We do trust that the friends of science will again bring the motion of remuneration forward, and that on the reconsideration of the subject, the decision will be such as to prevent the enemies of liberal institutions from repeating the charge which has been before brought against Republics, (viz.) "That Republics are ungrateful." Let this, however, be as it may, we do trust that the members of our own profession will prove that such a charge cannot be brought against them; and that every physician, from Maine to Georgia, will purchase the "EXPERIMENTS AND OBSERVATIONS ON THE GASTRIC JUICE AND THE PHYSIOLOGY OF DIGESTION."

EXPERIMENTS AND OBSERVATIONS ON THE GASTRIC JUICE AND THE PHYSIOLOGY OF DIGESTION.

By WILLIAM BEAUMONT, M. D., Surgeon in the U. S. Army. [Octavo, 280 p.]

Dr. WILLIAM BEAUMONT has met with a most remarkable case, and has furnished to the students of Physiology a very interesting book. It is true that most of the facts illustrative of the

phenomena of digestion, which he has established, are not new. The observations and experiments of Spallanzani, and those of other modern physiologists, had so fully investigated the facts of the digestive process, that nearly all its arcanæ had been revealed. But as their experiments had been chiefly instituted on the inferior animals, the reasonings as deduced from them could only be applied by analogy to the human subject, and consequently they were defective in that force and precision which it is of so much consequence to obtain in the demonstration of physiological truths. The experiments and investigations on the functions of digestion furnished by Dr. Beaumont, have been, on the contrary; performed on the human subject; and have therefore, as viewed in relation to human physiology, a reality and value, far superior to those of all other physiologists. The case he has had under his care, is, so far as we are aware, a *unique* one. The interior of the stomach has been opened to his ocular observation, and for a number of years he has had the power to witness the wonderful process which is performed within it in all the stages of its progress; to measure the varieties of its temperature with the thermometer, and to note all the changes manifested in the appearance of its surface in health and disease.

The zeal and devotion of Dr. Beaumont in availing himself of the opportunities afforded him, are deserving of all praise. No expense, no labor has been spared by him, and we do trust that the members of the profession, throughout the United States, will prove to him their gratitude for his exertions in the cause of physiological science, by possessing themselves of his work. It is a book which ought to be placed in the library of every physician. In our critical analysis of its contents, all we shall attempt is merely to whet the curiosity of our readers for an examination of the extended details of the original, and to animadvert on some of the opinions adduced by its author. We are persuaded from the spirit evinced by Dr. Beaumont, that his sole object is the elucidation of physiological truth, and that should we be compelled to differ in some instances from the deductions he draws from his facts, that he will feel that our criticisms are actuated by the same love of truth, which is so manifest throughout the whole of his observations.

The particulars of the case of Alexis St. Martin, the subject of these experiments, is so re-

markable, in a surgical point of view, that we extract the detail of its history as furnished in the introduction to the work.

EXTRACT. [From p. 9 to 17.]

"ALEXIS ST. MARTIN, who is the subject of these experiments, was a Canadian, of French descent, at the above mentioned time about 18 years of age, of good constitution, robust and healthy. He had been engaged in the service of the American Fur Company, as a voyageur, and was accidentally wounded by the discharge of a musket, on the 6th of June, 1822.

The charge, consisting of powder and duck shot, was received in the left side of the youth, he being at a distance of not more than one yard from the muzzle of the gun. The contents entered posteriorly, and in an oblique direction, forward and inward, literally blowing off integuments and muscles of the size of a man's hand, fracturing and carrying away the anterior half of the sixth rib, fracturing the fifth, lacerating the lower portion of the left lobe of the lungs, the diaphragm, and perforating the stomach.

The whole mass of materials forced from the musket, together with fragments of clothing and pieces of fractured ribs, were driven into the muscles and cavity of the chest.

I saw him in twenty-five or thirty minutes after the accident occurred, and on examination, found a portion of the lung, as large as a turkey's egg, protruding through the external wound, lacerated and burnt; and immediately below this, another protrusion, which on further examination, proved to be a portion of the stomach, lacerated through all its coats, and pouring out the food he had taken for his breakfast, through an orifice large enough to admit the fore finger.

In attempting to return the protruded portion of the lung, I was prevented by the sharp point of the fractured rib, over which it had caught by its membranes; but by raising it with my finger and clipping off the point of the rib, I was able to return it into its proper cavity, though it could not be retained there, on account of the incessant efforts to cough.

The projecting portion of the stomach was nearly as large as that of the lung. It passed through the lacerated diaphragm and external wound, mingling the food with the bloody mucus blown from the lungs.

After cleansing the wound from the charge and other extraneous matter, and replacing the stomach and lungs as far as practicable, I applied the carbonated fermenting poultice, and kept the surrounding parts constantly wet with a lotion of muriate of ammonia and vinegar; and gave internally the aq. acct. am. with camphor in liberal quantities.

Under this treatment a strong reaction took place in about twenty-four hours, accompanied with high arterial excitement, fever, and marked symptoms of inflammation of the lining mem-

branes of the chest and abdomen, great difficulty of breathing, and distressing cough.

He was bled to the amount of eighteen or twenty ounces, and took a cathartic. The bleeding reduced the arterial action, and gave relief. The cathartic had no effect, as it escaped from the stomach through the wound.

On the 5th day a partial sloughing of the integuments and muscles took place. Some of the protruded portions of the lung, and lacerated parts of the stomach, also sloughed, and left a perforation into the stomach, plainly to be seen, large enough to admit the whole length of my fore-finger into its cavity; and also a passage into the chest, half as large as my fist, exposing to view a part of the lung, and permitting a free escape of air and bloody mucus at every respiration.

A violent fever continued for ten days, running into a typhoid type, and the wound became very fetid.

On the eleventh day, a more extensive sloughing took place, the febrile symptoms subsided, and the whole surface of the wound assumed a healthy and granulating appearance.

For seventeen days, all that entered his stomach by the œsophagus, soon passed out through the wound; and the only way of sustaining him was by means of nutritious injections per anum, until compresses and adhesive straps could be applied so as to retain his food. During this period no alvine evacuations could be obtained, although cathartic injections were given, and various other means were adopted to promote them.

In a few days after firm dressings were applied, and the contents of the stomach retained, the bowels became gradually excited, and, with the aid of cathartic injections, a very hard, black, fetid stool was procured, followed by several similar ones; after which the bowels became quite regular, and continued so.

The cataplasms were continued until the sloughing was completed, and the granulating process fully established; and were afterwards occasionally resorted to, when the wound became ill conditioned. The aq. acet. am. with camphor was also continued for several weeks, in proportion to the febrile symptoms, and the fetid condition of the wound.

No sickness, nor unusual irritation of the stomach, nor even the slightest nausea, was manifest during the whole time; and after the fourth week, the appetite became good, digestion regular, the alvine evacuations natural, and all the functions of the system perfect and healthy.

By the adhesion of the sides of the protruded portions of the stomach to the pleura costalis and the external wound, a free exit was afforded to the contents of that organ, and effusion into the abdominal cavity was thereby prevented.

Cicatrization and contraction of the external wound commenced on the fifth week; the stomach became more firmly attached to the pleura and intercostals, by its external coats; but showed not the least disposition to close its orifice; this (the orifice) terminated as if by a natural

boundary, and left the perforation, resembling, in all but a sphincter, the natural anus, with a slight prolapsus.

Whenever the wound was dressed, the contents of the stomach would flow out, in proportion to the quantity recently taken. If the stomach happened to be empty, or nearly so, a partial inversion would take place, unless prevented by the application of the finger. Frequently in consequence of the derangement of the dressing, the inverted part would be found of the size of a hen's egg. No difficulty, however, was experienced in reducing it by gentle pressure with the finger, or a sponge wet with cold water, neither of which produced the least pain.

In the seventh week, exfoliation of the ribs, and a separation of their cartilaginous ends, began to take place.

The sixth rib was denuded of its periosteum for about two inches from the fractured part, so that I was obliged to amputate it about three or four inches from its articulation with the spine. This I accomplished by dissecting back the muscles, securing the intercostal artery, and sawing off the bone with a very fine narrow saw, made for the purpose, introduced between the ribs, without injury to the neighboring parts. Healthy granulations soon appeared, and formed soundly over the amputated end. About half the inferior edge of the fifth rib exfoliated and separated from its cartilage.

After the removal of these pieces of bone, I attempted to contract the wound and close the perforation of the stomach, by gradually drawing the edges together with adhesive straps, laid on in a radiated form.

The circumference of the external wound was at least twelve inches, and the orifice in the stomach nearly in the centre, two inches below the left nipple, on a line drawn from this to the point of the left ilium.

To retain his food and drinks I kept a compress and tent of lint, fitted to the shape and size of the perforation, and confined there by adhesive straps.

After trying all the means in my power for eight or ten months to close the orifice, by exciting adhesive inflammation in the lips of the wound, without the least appearance of success, I gave it up as impracticable in any other way than that of incising and bringing them together by sutures; an operation to which the patient would not submit.

By the sloughing of the injured portion of the lung, a cavity was left as large as a common sized teacup, from which continued a copious discharge of pus for three months, when it became filled with healthy granulations, firmly adhering to the pleura, and soundly cicatrized over that part of the wound.

Four months after the injury was received, an abscess formed about two inches below the wound, nearly over the cartilaginous ends, of the first and second false ribs, very painful and extremely sore, producing violent symptomatic fever. On the application of an emollient poultice it pointed externally. It was then laid open

to the extent of three inches, and several shot and pieces of wad extracted. After which a gum-elastic bougie could be introduced three or four inches in the longitudinal direction of the ribs towards the spine. Great pain and soreness extended from the opening of the abscess, along the track of the cartilaginous ends of the false ribs, to the spine, with a copious discharge from the sinus.

In five or six days there came away a cartilage, one inch in length. In six or seven days more, another, an inch and a half long; and in about the same length of time, a third, two inches long were discharged. And they continued to come away every five or six days, until *five* were discharged from the same opening, the last three inches in length. They were all entire, and evidently separated from the false ribs.

The discharge, pain and irritation, during the four or five weeks these cartilages were working out, greatly reduced the strength of the patient, produced a general febrile habit, and stopped the healing process of the original wound.

Directly after the discharge of the last cartilage, inflammation commenced over the lower end of the sternum, which by the usual applications, terminated in a few days in a large abscess, and from which, by laying it open two inches, I extracted another cartilage, three inches in length. The inflammation then abated; and in a day or two another piece came away, and the discharge subsided.

To support the patient under all these debilitating circumstances, I administered wine, with diluted muriatic acid, and thirty or forty drops of the tincture of assafoetida, three times a day; which appeared to produce the desired effect, and very much improved the condition of the wound.

On the third of January, 1823, I extracted another cartilage from the opening over the sternum, an inch and a half long; and on the fourth another, two inches and a half in length, an inch broad at one end, and narrowing to less than half an inch at the other. This must have been the ensiform cartilage of the sternum. After this the sinus closed, and there was no return of inflammation.

From the month of April, 1823, at which time he had so far recovered as to be able to walk about and do light work, enjoying his usual good appetite and digestion, he continued with me, rapidly regaining his health and strength.

By the 6th of June, 1823, one year from the time of the accident, the injured parts were all sound and firmly cicatrized, with the exception of the aperture in the stomach and side. This continued much in the same situation as it was six weeks after the wound was received. The perforation was about two and a half inches in circumference, and the food and drinks constantly exuded, unless prevented by a tent, compress and bandage.

From this time he continued gradually to improve in health and strength, and the newly formed integuments over the wound became firmer and firmer. At the point where the lacerated edges of the muscular coat of the stomach and

intercostal muscles met and united with the cutis vera, the *cuticle* of the external surface and the *mucous membrane* of the stomach *approached* each other very nearly. They did not unite, like those of the lips, nose, &c., but left an intermediate marginal space, of appreciable breadth, completely surrounding the aperture. The space is about a line wide; and the cutis and nervous papillæ are unprotected, as sensible and irritable as a blistered surface abraded of the cuticle. This condition of the aperture still continues, and constitutes the principal and almost only cause of pain or distress experienced from the continuance of the aperture, the introduction of instruments, &c. in the experiments, or the exudation of fluids from the gastric cavity.

Frequent dressings with soft compresses and bandages were necessarily applied, to relieve his suffering and retain his food and drinks, until the winter of 1823-4. At this time a small fold or doubling of the coats of the stomach appeared, forming at the superior margin of the orifice, slightly protruding, and increasing till it filled the aperture, so as to supercede the necessity for the compress and bandage for retaining the contents of the stomach. This valvular formation adapted itself to the accidental orifice, so as completely to prevent the efflux of the gastric contents when the stomach was full, but was easily depressed with the finger.

In the spring of 1824 he had perfectly recovered his natural health and strength; the aperture remained; and the surrounding wound was firmly cicatrized to its edges."

In the month of May, 1825, a series of experiments, on the gastric fluid, was commenced at Fort Mackinac, Michigan Territory, which were published in the 26th No. of the "Medical Recorder." Dr. Beaumont having been removed to Plattsburgh, N. Y., in the autumn of 1825, St. Martin accompanied him, but shortly afterwards, without his consent, left his service to return to Canada, where he married, and labored hard to support his family. Dr. Beaumont having, after much trouble, discovered his residence, succeeded in inducing him, at a great expense, to transport himself and his wife and children to Fort Crawford, Prairie du Chien, Upper Mississippi, where the Doctor was then stationed, a distance of nearly 2000 miles. St. Martin remained in the service of Dr. B., at Fort Crawford, until the spring of 1831, when he again returned to Canada. In 1832 he again engaged in the Doctor's service, and the experiments detailed have been continued up till the month of March, 1833.

Dr. Beaumont's work is divided into two parts—first, preliminary observations, and second, a detail of his numerous experiments. His preliminary observations, which are intended to elucidate his opinions on the subject of digestion,

occupy seven chapters on the following subjects: "1st. Of Elements. 2d. Of Hunger and Thirst. 3d. Of Satisfaction and Satiety. 4th. Of Mastication, Insalivation, and Deglutition. 5th. Of Digestion by the Gastric Juice. 6th. Of the appearance of the Villous Coat of the Stomach. 7th. Of Chylification, and uses of the Bile and Pancreatic Juice."

We shall briefly advert to the facts and opinions brought forward in each of these sections, and shall take up their consideration in order.

Dr. Beaumont adopts the opinion of those physiologists who believe that the nutriment furnished by the chyme, formed from all substances, vegetable as well as animal, is essentially the same. We are ourselves disposed to subscribe to the same opinion, but we must confess that we agree with him in thinking that the experiments which he performed for the purpose of establishing the fact, are very "imperfect," and cannot be considered as corroborative of its truth. The experiments to which we allude are detailed, p. 164—experiments 47 to 56. In these, by taking from the stomach chyme formed by the digestion of very different substances, and adding to it bile, fine coagulæ were immediately produced; this, by the addition of dilute muriatic acid, which was intended as a substitute for the pancreatic fluid, produced a "white balsamic" mixture, which, when allowed to stand at rest, separated into three distinct parts: "a clay colored sediment at the bottom, a whey colored fluid above, and a thin, oily, whitish pellicle on the top."

In all the experiments, the separation of the chyme into three parts occurred, and in each the characters of the three were nearly the same. But the inference drawn, viz., that the whey colored fluid is chyle, and chyle essentially the same, is, we conceive, a conclusion which the facts do not warrant. Fluids differing in the constitution of their elements may present a general character of resemblance to each other in their appearance. The nicest chemical analysis would be required to demonstrate that they were identical, and even had this by analysis been ascertained to have been the fact, minute and inappreciable differences, which even chemistry could not detect, might have existed. Again, the assumption that the bile and pancreatic juice separates the chyle from the chymous mass, is a mere assumption, and one which the progress of physiological science has not yet demonstrated.

Admitting that the bile and pancreatic juice do exert an influence in separating the chyle from the chyme, still we cannot admit that the process is a simple chemical process; one which can be performed out of the body, and independently of the vital agency. The observation of D'Alembert, that the phenomena effected in inert matter should never be employed in the elucidation of the vital processes, should never be forgotten by physiological investigators. In all the operations of the economy, the influence of a mysterious vital agent is manifest, and surely in none of them is the necessity for such a power more strongly indicated, than in the conversion of dead animal and vegetable matter into the elements of life.

In our opinion the objections we have stated are sufficient to destroy the conclusions which have been deduced from the experiments to which we have adverted; but there are others which might be urged. The bile used was not taken from a human subject, but from either a recently slaughtered ox or pig; and the other fluid employed was, in a majority of them, not the true pancreatic juice, but merely a dilute muriatic acid. Surely, Dr. Beaumont does not believe that the bile of an ox, or a hog, is identical with that of a man! and that he can manufacture the *genuine* pancreatic juice, by mixing water with muriatic acid!!

The subject of the different degrees of digestibility of the different articles of the "*Materia Alimentaria*," is one of great interest to the physician. In the chapter "on aliment," there are a number of interesting observations, drawn from the numerous experiments instituted by the author. To these we refer our readers, and content ourselves with copying the following interesting table, showing the mean time of digestion of the different Articles of Diet, naturally in the Stomach, and artificially, in Vials placed in a bath.

The proportion of gastric juice to aliment, in artificial digestion, was *generally* calculated at one ounce of the former to one dram of the latter, the bath being kept as near as practicable at the natural temperature, 100° Fahrenheit, with frequent agitation.

<i>Articles of Diet.</i>	<i>Mean time of chymification.</i>			
	<i>In Stomach.</i>		<i>In Vials.</i>	
	<i>Prepared.</i>	<i>h. m.</i>	<i>Prepared.</i>	<i>h. m.</i>
Rice,	boiled	1 00		
Sage,	do.	1 45	boiled	3 15
Tapioca,	do.	2 00	do.	3 20
Barley,	do.	2 00		
Milk,	do.	2 00	do.	4 15
Do.	raw	2 15	raw	4 45
Gelatine,	boiled	2 30	boiled	4 45
Pig's feet, soused,	do.	1 00		
Tripe, do.	do.	1 00		
Brains, animal,	do.	1 45	do.	4 30
Venison, steak,	broiled	1 35		
Spinal marrow, animal,	boiled	2 40	do.	5 25
Turkey, domesticated,	roasted	2 30		
Do. do.	boiled	2 25		
Do. wild,	roasted	2 18		
Goose, do.	do.	2 30		
Pig, sucking,	do.	2 30		
Liver, beef's, fresh,	broiled	2 00	cut fine	6 30
Lamb, fresh,	do.	2 30		
Chicken, full grown,	fricaseed	2 45		
Eggs, fresh,	hard boiled	3 30	hand boiled	8 00
Do. do.	soft boiled	3 00	soft boiled	6 30
Do. do.	fried	3 30		
Do. do.	roasted	2 15		
Do. do.	raw	2 00	raw	4 15
Do. whipped,	do.	1 30	whipped	4 00
Custard,	baked	2 45	baked	6 30
Codfish, cured dry,	boiled	2 00	boiled	5 00
Trout, salmon, fresh,	do.	1 30	do.	3 30
Do. do.	fried	1 30		
Bass, striped, do.	broiled	3 00		
Flounder, do.	fried	3 30		
Catfish, do.	do.	3 30		
Salmon, salted,	boiled	4 00	do.	7 45
Oysters, fresh,	raw	2 55	raw, entire	7 30
Do. do.	roasted	3 15		
Do. do.	stewed	3 30	stewed	8 25
Beef, fresh, lean, rare,	roasted	3 00	roasted	
Do. do. dry,	do.	3 30	do.	7 45
Do. steak,	broiled	3 00	masticated	8 15
Do. do.	do.		cut fine	8 00
Do. do.	raw		do.	8 15
Do. with salt only,	boiled	3 36		9 30
Do. with mustard, &c.	do.	3 10		
Do. fresh, lean,	do.		masticated	9 00
Do.	do.		entire piece	12 30
Do.	fried	4 00		
Do. old, hard salted,	boiled	4 15		
Pork, steak,	broiled	3 15		
Pork, fat and lean,	roasted	5 15		
Do. recently salted,	boiled	4 30	masticated	6 30
Do. do.	fried	4 15		
Do. do.	broiled	3 15		
Do. do.	raw	3 00	raw	8 30
Do. do.	stewed	3 00		
Mutton, fresh,	roasted	3 15		
Do. do.	broiled	3 00	masticated	6 45
Do. do.	do.		unmasticated	8 30
Do. do.	boiled	3 00		
Veal, fresh,	broiled	4 00		
Do. do.	fried	4 30		
Fowls, domestic,	boiled	4 00	masticated	6 30
Do. do.	roasted	4 00		

<i>Articles of Diet.</i>	<i>Mean time of chymification.</i>			
	<i>In Stomach.</i>		<i>In Vials.</i>	
	<i>Prepared.</i>	<i>h. m.</i>	<i>Prepared.</i>	<i>h. m.</i>
Ducks, domesticated,	roasted	4 00		
Do. wild,	do.	4 30		
Suet, beef, fresh,	boiled	5 30	entire piece	12 00
Suet, mutton,	do.	4 30	divided	10 00
Butter	melted	3 30		
Cream,			raw	25 30
Cheese, old, strong,	raw	3 30	masticated	7 15
Do. do.			entire piece	18 00
Do. new, mild,			divided	8 30
Oil, Olive,			raw	60 00
Soup, beef, vegetables and bread,	boiled	4 00		
Do. marrow bones,	do.	4 15		
Do. bean,	do.	3 00		
Do. barley,	do.	1 30		
Do. mutton,	do.	3 30		
Green corn and beans,	do.	3 45		
Chicken soup,	do.	3 00		
Oyster soup,	do.	3 30		
Hash, meat and vegetables,	warmed	2 30		
Sausage, fresh,	broiled	3 20		
Heart, animal,	fried	4 00	entire piece	13 30
Tendon,	boiled	5 30	masticated	12 45
Do.			entire piece	24 00
Cartilage,	do.	4 15	masticated	10 00
Do.			divided	12 00
Aponeurosis,	do.	3 00	boiled	6 30
Bone, beef's, solid,			entire piece	80 00
Do. hog's, do.			do.	80 00
Beans, pod,	do.	2 30		
Bread, wheat, fresh,	baked	3 30	masticated	4 30
Do. corn,	do.	3 15		
Cake, do.	do.	3 00		
Do. sponge,	do.	2 30	broken	6 15
Dumpling, apple,	boiled	3 00		
Apples, sour, hard,	raw	2 50	entire pieces	18 00
Do. do. mellow,	do.	2 00	masticated	8 30
Do. sweet, do.	do.	1 30	do.	6 45
Parsnips,	boiled	2 30	mashed	6 45
Do.	do.		entire piece	13 15
Do.	raw		do.	18 00
Carrot, orange,	boiled	3 15	mashed	6 15
Do.			entire piece	12 30
Do.			raw, do.	17 15
Beets,	boiled	3 45		
Turnips, flat,	do.	3 30		
Potatoes, Irish,	do.	3 30	mashed	8 30
Do. do.			entire piece	14 00
Do. do.	roasted	2 30		
Do. do.	baked	2 30		
Cabbage, head,	raw	2 30	masticated	12 30
Do. with vinegar,	do.	2 00	shaved	10 15
Do.	boiled	4 30	boiled	20 00
Peach, mellow,			cut small	10 00
Do. do.			mashed	6 00

“The foregoing table is formed from all the experiments made upon St. Martin, since 1825, taking the average from such as were generally performed under the naturally healthy condition of the stomach, and ordinary exercise.

The mean times of artificial chymification, have been taken from such experiments as were generally made with the pure gastric juice, or such as was too slightly vitiated, to impair its solvent effect, in any essential degree.

They exhibit the average, as near as practicable, for the digestion of one dram of alimentary matter, in one ounce of gastric juice, or in about that proportion, counting the time actually kept on the bath, or in the axilla.

Exceptions, however, must be made for the bone, oil cream, and one or two other articles, which chymify much slower and more difficultly, than the less concentrated aliments.

Several experiments have been omitted, especially when they were of the same kinds, and produced similar results.”

Dr. Beaumont, in his preliminary observations on the sensations of hunger and thirst, mentions a number of the hypotheses which have been brought forward as explanatory of these sensations. We agree, with the author, in the opinion that they are unsatisfactory, but we must say that we do not consider his own theory of hunger one whit more satisfactory. We give it in his own words, and the arguments by which he attempts to support it.

“My impression is, that the sensation of hunger is produced by a *distention* of the gastric vessels, or that apparatus, whether vascular or glandular, which secretes the gastric juice; and is believed to be the effect of repletion by this fluid.

One reason among others, for this belief, is the established fact, that the internal sensations referred to different organs, as has been previously alluded to, are caused by some modified action or condition of the parts in the tissues of the organ itself. The modification in the parts to which the sense of hunger is invariably referred, I conceive to be a distention, by the gastric juice, of a particular set of vessels or glands, constituting, in part, the erectile tissue of the villous coat of the stomach. The sensation varies according to the different degrees or states of distention, from the simplest desire to the most painful sense of hunger; and is allayed or increased in proportion to the application, or refusal, of alimentary stimulus to the excretory vessels. The greater the distension of the vessels, the more acute will be the pain; hence, the difference between a short and protracted fast. Appetite and hunger belong to the same class of sensations; they differ only in degree. In this they are like all other sensations. A little increased circulation in the vessels of the brain produces peculiarly vivid, but not absolutely unpleasant feelings, and gives force and energy to the mental volitions; carried further, it produces most painful sensations. It is unnecessary to cite further examples. Indeed, it does not need arguments to

prove what is the subject of every day's observation. It is well known that the pain from acute inflammation is produced by distention of the blood vessels. Let any one, who is disposed to try the effect of vascular distention, place a ligature around the finger or arm, sufficiently tight to retard the returning blood, and the truth will be sufficiently obvious.

It is, therefore, inferred from the pain, (and no one, it is believed, will deny that *hunger* is a painful sensation, whatever may be his opinion of *appetite*,) that vessels of some kind are distended; and it is demonstrated, I think, in some of the following experiments, that these are the gastric vessels. On applying aliment to the internal coat of the stomach, which, in health, is merely lubricated with mucus, innumerable minute papillæ, the orifices, undoubtedly, of the gastric vessels, immediately throw out a quantity of the fluid, which mixes with the food. This effect is too sudden, and the secretion too copious, to be accounted for on the ordinary principles and laws of secreting mucous surfaces. The quiescence and relief from the unpleasant sensation, which are experienced as soon as the vessels are emptied, are, I think, additional proofs of my opinion. It is certain, that at the introduction of every meal, or on the application of alimentary stimulus to the internal coat of the stomach, a very large secretion of a fluid, which has repeatedly been ascertained to be an alimentary solvent immediately takes place; and that when the stomach is destitute of food or some other irritating substance, no such secretion can be found in it. And it is more than probable—it, in fact, almost amounts to demonstration, that a large quantity of this fluid must be contained in appropriate vessels, during a fast ready to obey the call of aliment. I would not be understood to say that the whole quantity necessary for an ordinary meal is eliminated from the blood, previous to the commencement of alimentation; but that enough is contained in the gastric vessels to produce the sensation of pain or hunger.

If it be objected to this theory, that the vessels would become ruptured, or empty themselves into the cavity of the stomach, during a long fast, I reply, that this apparatus is probably constituted like many of the other organs of the system, and permits the absorption of its secretions by the lymphatic or other absorbent vessels. The male semen is constantly being secreted, and deposited in its proper seminal vessels ready to be ejected during the venereal orgasm; and yet how many men live for years, or perhaps for a whole life, who have no intercourse with the other sex. What becomes of the semen under these circumstances? Taken up, unquestionably, by the absorbing vessels, as the gastric juice of the stomach is.”

[TO BE CONTINUED.]

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED BY GRANVILLE SHARP PATTISON, M. D.,

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PUBLISHED BY DUFF GREEN.

Vol. I.

WASHINGTON, JUNE 4, 1834.

No. 26.

EXPERIMENTS AND OBSERVATIONS ON THE GASTRIC JUICE AND THE PHYSIOLOGY OF DIGESTION.

By WILLIAM BEAUMONT, M. D., Surgeon in the U. S. Army. [Octavo, 280 p.]—Continued.

Now it will be admitted that his theory rests on a mere assumption, viz. that there "*is a distention of the gastric vessels.*" There is not a single fact in the experiments which goes to prove that the gastric vessels are in that state when a person is fasting. The inference that they are so, because when food is introduced the gastric fluid flows freely, is altogether inconclusive. The food is the natural stimulus to bring into active operation the secretory function of the gastric vessels; and the flowing of the gastric juice into the stomach on its introduction, is no more an evidence of the gastric vessels being in a state of distension, than the flowing of the saliva into the mouth on the introduction of a sapid morsel into it, is a proof that the excretory ducts of the salivary glands are distended with saliva. Moreover as the experiments of Dr. Beaumont prove that there is no excretion of the gastric juice except when there is food in the stomach; and as they further establish the fact, that in general the whole of the ingesta are digested and passed through the pylorus in a few hours after eating; if his theory was correct, so soon as the stomach was emptied, the gastric juice continuing to be secreted and no longer discharged, the distension of the small vessels, from the minute quantity they could contain, would take place instantaneously, and the maximum sensation of hunger would be the necessary and immediate consequence. Now, every person knows that this is

not the fact, and that it is a considerable time after the stomach is emptied before even the sensation of moderate appetite is felt.

The facts of Dr. Beaumont's experiments, without a single exception, go to the establishment of the opinion that the gastric juice is secreted with great rapidity, in large quantities, and just as it is required, and are consequently diametrically opposed to the assumed fact on which his theory of the cause of hunger rests. But were it otherwise, and had he by ocular observation demonstrated that the vessels which secrete the gastric juice were actually in a state of distention, still his conclusion that their distention is the cause of hunger is, in our opinion, far too mechanical an explanation of a vital phenomenon. Indeed, the whole of his reasonings, to support his theory, are based on assumptions: e. g. "*A little increased circulation in the vessels of the brain, produces peculiarly vivid, and not absolutely unpleasant feelings; carried further it produces most painful sensations.*" Is this, we would ask, really the fact? Does the drunkard whose cerebral vessels are gorged with blood, or the individual under the influence of opium, complain of violent headache when the vessels are in that state, or on the following morning when they are comparatively empty? Are not delicate females in whom the circulation is particularly languid, those who suffer most from severe pains in the head? Again, Dr. Beaumont says, "It is well known that the pain in acute inflammation is produced by distention of the blood vessels." Now we must beg the doctor's pardon, and assert that the distention of the blood vessels is far from being admitted as the sole cause of the pain attendant on inflammation; and if facts be examin-

ed, it will be found that the amount of pain present in inflammation is not to be measured by the amount of distention; that in some inflammation where the swelling is great the pain is trifling, and in others where the distention is scarcely appreciable the suffering is exquisite.

Magendie states, that "Hunger is produced like all other internal sensations, by the action of the nervous system, and has no other seat than this system itself, and no other law than the general laws of organization." Dr. Beaumont objects to this explanation as unphilosophical and unsatisfactory. We admit that it is unsatisfactory, but we must insist that to assume certain premises as demonstrated facts, which are in truth unsupported speculations, and to deduce from such visionary data positive conclusions, is a much more unphilosophical mode of investigating physiological truth. There are in the operations of the animal economy, many things which have as yet remained, and will in all probability, for ever, remain inexplicable. Far be it from us to inculcate that the explanation of these secrets should not be attempted, that we should remain satisfied with our present knowledge. We would, on the contrary, urge physiologists never to rest satisfied so long as any of the vital processes remain concealed; but we would earnestly counsel them to let all their investigation be conducted in the spirit of the pure inductive philosophy. Let all their reasonings and deductions rest on ascertained and demonstrated parts. Let them never assume anything as true, which cannot be demonstrated. Let them only be regulated by these rules, which constitute the only true mode of philosophizing, and the conclusions at which they will arrive will not be visionary hypotheses, but demonstrated truths.

Although Dr. Beaumont has not, in our opinion, furnished a more satisfactory explanation of the cause of hunger than any of his predecessors, his experience has conclusively disproved several of the hypotheses which are taught by certain physiologists as explanatory of it. For example, the theory that it depends on the invitation produced by the presence of a quantity of the gastric juice is demonstrated to be incorrect; for by the experiments on St. Martin, it was proved that even after long fasting, there was none of the juice, or, at any rate only a very small quantity of it, to be found in the stomach.

Dr. Beaumont, in his chapter on "*Satisfaction and Satiety*," forcibly insists on the injurious consequences which arise from eating to satiety. He distinguishes between eating to "*satisfaction*

and satiety." We quote the following paragraph, and most heartily subscribe to the truth of the observations it contains.

"There is no subject of dietetic economy about which people err so much, as that which relates to *quantity*. The medical profession, too, have been accessory to this error, in giving directions to dyspeptics to eat until a sense of satiety is felt. Now, this feeling, so essential to be rightly understood, never supervenes until the invalid has eaten too much, if he have an appetite which seldom fails him. Those, even, who are not otherwise predisposed to the complaint, frequently induce a diseased state of the digestive organs by too free indulgence of the appetite. Of this fact the medical profession are, generally, not sufficiently aware. Those who lead sedentary lives; and whose circumstances will permit of what is called free living, are peculiarly obnoxious to these complaints. But by paying particular attention to their sensations during the ingestion of their meals, these complaints may be avoided. There appears to be a sense of perfect intelligence conveyed from the stomach to the encephalic centre, which, in health, invariably dictates what quantity of aliment (responding to the sense of hunger, and its due satisfaction,) is naturally required for the purposes of life; and which, if noticed, and properly attended to, would prove the most salutary monitor of health, and effectual preventive of, and restorative from, disease. It is not the sense of *satiety*, for this is beyond the point of *healthful* indulgence, and is nature's earliest indication of an *abuse* and *overburthen* of her powers to replenish the system. It occurs immediately previous to this; and may be known by the pleasurable sensation of *perfect satisfaction, ease and acquiescence of body and mind*. It is when the stomach says *enough*, and is distinguished from satiety by the difference of the sensations—the former feeling *enough*—the latter, *too much*. The first is produced by the timely reception into the stomach of proper aliment, in exact proportion to the requirements of nature, for the perfect digestion of which, a definite quantity of gastric juice is furnished by the proper gastric apparatus. But to effect this most agreeable of all sensations and conditions—the real Elysian satisfaction of the *reasonable* epicure—timely attention must be paid to the preliminary processes, such as thorough mastication, and moderate or slow deglutition. These are indispensable to the due and natural supply of the stomach, at the stated periods of alimentation; for if food be swallowed too fast, and pass into the stomach imperfectly masticated, too much is received in a short time, and in too imperfect a state of preparation, to be disposed of by the gastric juice."

In the fourth chapter, Dr. Beaumont treats of Insalivation, Mastication, and Deglutition. As the question as to the value of the saliva in the process of digestion, will naturally require to be noticed when we examine the opinions of Dr. Beaumont on the operation of the gastric juice, we shall not advert to it at present.

"The use of mastication is to separate the food into small particles, so that the solvent of the stomach may be applied to a greater extent of surface. There is no mystery about this. Every body knows that the smaller the particles of matter which are submitted to the action of a chemical agent the more vigorously the agent will act upon them, and the sooner they will be dissolved or decomposed. Mastification is absolutely necessary to a healthy digestion. If aliment in large masses be introduced into the stomach, though the gastric juice may act on its surface, chymification will proceed so slowly that other changes will be likely to commence in its substance before it will become completely dissolved. Besides, the stomach will not retain undigested masses for a long time without suffering great disturbance." These observations are made from experiments instituted on St. Martin. They are perfectly just, and it were well if the general public were made better acquainted with the importance of complete mastication for perfect digestion. In no country with which we are acquainted do individuals suffer so much from dyspepsia as in the United States; and although the climate may have some influence in the production of the disease, we are persuaded that the rapidity with which the great majority of people swallow their food, is the fertile source of its prevalence.

If mastication is imperfectly performed, the deglutition will necessarily take place more rapidly than the stomach is prepared to receive the ingesta. Dr. Beaumont has, from examining the esophagean orifice of St. Martin's stomach during deglutition, discovered that

"The stomach will not admit of the introduction of food, even of a liquid kind, through the aperture, at a rapid rate. If a few spoonfuls of soup, or other liquid diet, be put in with a spoon or funnel, the rugæ gently close upon it, and gradually diffuse it through the gastric cavity, entirely excluding more during this action. When a relaxation takes place, another quantity will be received in the same manner.

"If the valvular portion of the stomach be depressed, and solid food be introduced, either in entire pieces, or finely divided quantities, the same gentle contraction, or grasping motion, takes place, and continues for fifty or eighty seconds; and will not allow of the introduction of another quantity until the above time has elapsed; when the valve may again be depressed, and more food be put in. Food and drinks will be received through the aperture no faster, even when the stomach is entirely empty, than they are ordinarily received through the œsophagus.

"When the subject of these experiments is so placed that the cardia can be seen, and he be al-

lowed to swallow a mouthful of food, the same contraction of the stomach, and closing upon the bolus, is invariably observed to take place at the œsophageal ring."

Since the experiments of SPALLANZANI, those physiologists who have preferred facts to speculations, have admitted the existence of a specific secretion of gastric juice, and have considered this fluid as the principal, if not the sole agent in converting the substances of the "*materia alimentaria*," received into the stomach, into chyme. MONTEGUE, it is true, adopted the absurd fancy that there was no specific solvent, and "that the gastric juice was in fact nothing but saliva; that it possessed no peculiar powers of acting on alimentary matter; that the principal use of the gastric juice is to dilute the food; and that the only action of the stomach consisted in '*une absorption vitale et elective*,' in which the absorbent vessels, in consequence of their peculiar sensibility, take up certain parts and reject others." One would have supposed that hypothesis so futile, and so opposed to facts and observation, would have been allowed to remain *still-born*, but such, unfortunately, has not been the fact. A gentleman well known to the profession as a most zealous and devoted disciple of Broussais, has laid hold of the poor bantling which could find no foster parent in the land of its nativity, and after having dressed it out in a little additional tinsel, which, by the by, is second hand, has introduced it to the profession of the United States. His *new* theory, as it is called, is, 1st. That maceration is essential to digestion. 2d. That the food so macerated is submitted to the action of different fluids, each of which has solvent powers for different principles. 3d. That the saliva is the great solvent, and that "*the presumed gastric juice is no other than the salivary, buccal, pharyngeal, œsophagial, and stomachical, follicular secretions and exhalations collected in the stomach.*" (A strange sentence, it must be admitted, but a fair specimen of the author's style.) This hypothesis, it will be observed, is quite *à la Broussais*, it is based on mere assumptions, and is not supported by a single fact: e. g., what evidence have we that the different fluids have solvent powers for the different principles of the food? The proof rests merely in the imagination of the author of the hypothesis. From peculiar circumstances we feel some delicacy in expressing ourselves as strongly as we should otherwise be disposed to do, on the inquiry inflicted on physiological science by this unphilosophical method of getting up a hypothesis. Every individual sincerely at-

tached to the profession of medicine is bound, as the watchmen on the walls, to prevent unfounded speculations being admitted into the science as demonstrated truths, and our duty compels us to denounce all erroneous speculations. This duty is rendered still more imperative when such opinions are inculcated by public teachers, who must necessarily, from their situation, exercise a considerable influence on the opinions of the younger members of the profession. The gentleman to whom we have alluded, and for whom we have the greatest respect, unfortunately suffers his imagination to run riot in the investigation of medical truths; and as he, following the example of his great prototype in delivering his opinions, so involved his doctrines in a style of composition which renders them incomprehensible, we feel the stronger obligation to put our younger brethren on their guard against receiving his speculations as demonstrated truths. We know that the modesty of youth sometimes induces it to receive as unquestionable facts the lessons of those whom they respect, although they cannot understand the reasoning by which they are supported. They conceive the fault is with themselves, not with their teacher, and they therefore go forth to the profession the slaves of heresies they have adopted on the word of their master. We would advise no student "*jurare in verba magistri*." Let him take nothing for granted which his preceptor has not demonstrated to him to be true; and should he, his own mind being well trained, and intent on following the chain of reasoning on which any specific proposition is attempted to be proved, find the argument incomprehensible, he may with perfect safety infer that the fault is not with him, but with his teacher. Theories founded on facts are easily explained, and can be comprehended by the plainest understanding. It is only visionary speculations, unintelligible to their authors, which are incomprehensible.

Dr. Beaumont, after criticising the hypothesis we have now been considering, observes: "It is unfortunately for the interests of physiological science, that it generally falls to the lot of men of vivid imaginations and great powers of mind to become restive under the restraints of a tedious and routine mode of thinking, and to strike out into bold and original hypothesis to elucidate the operation of nature, or to account for the phenomena that are constantly submitted to their inspection. The process of developing truth by patient and persevering investigation, experiment and research, is incompatible with their

notions of unrestrained genius. The drudgery of science they leave to humbler and more unpretending contributors," &c., &c. Now, begging the doctor's pardon, we must say that this is absolutely nonsense, and not only nonsense, but most dangerous nonsense, to disseminate amongst the younger members of the profession. There was a day, it is true, when every visionary who indulged in all manner of imaginations and follies, was designated as a "MAN OF GENIUS." The term then, however, was considered as synonymous with "MADMAN," and as so applied cannot be objected to. But when we speak of a "MAN OF GENIUS" now, we speak of a highly gifted individual. A man of "great powers of mind," one who does strike "out into bold and original hypothesis to elucidate the operations of nature," but one who takes care to support the superstructure on the adamantine columns of demonstrated TRUTH. We consider NEWTON, GALILEO, HARVEY, HALLER, Hunter, Franklin, Bichat, Davy, Lænnac, Cuvier, and a host of other worthies, as "men of genius," and not those "who, from the gratification of a morbid desire to be distinguished as the head of a new sect," have become known to the profession as the founders of the Thomsonian, the Hæmopathic, or the Broussaisan systems of medicine. Let not the followers of Broussais be annoyed with us for having classed their idol with the founder of Thomsonianism. The doctrines of Thomson, as to the origin of disease, are to the full as original as those taught by Broussais, and the lessons of practice deduced from them are, we have reason to know, not one whit more destructive of human life than those inculcated by the author of the "PHYSIOLOGICAL SYSTEM."

Had a doubt remained as to the existence of the gastric juice, and of its being the specific agent in the conversion of the food received into the stomach into chyme, the experiments and observations of Dr. Beaumont would for ever settle the question. Our space will only permit us to quote a few passages from this interesting chapter in corroboration of these facts.

"The gastric juice appears to be secreted from numberless vessels, distinct and separate from the mucous follicles. These vessels, when examined with a microscope, appear in the shape of small lucid points, or very fine papillæ, situated in the interstices of the follicles. They discharge their fluid only when solicited to do so, by the presence of aliment, or by mechanical irritation.

"Pure gastric juice, when taken directly out of the stomach of a healthy adult, unmixed with any other fluid, save a portion of the mucus of the

stomach, with which it is most commonly, and perhaps always combined, is a clear, transparent fluid; inodorous; a little saltish, and very perceptibly acid. Its taste, when applied to the tongue, is similar to thin mucilaginous water, slightly acidulated with muriatic acid. It is readily diffusible in water, wine, or spirits; slightly effervesces with alkalis; and is an effectual solvent of the *materia alimentaria*. It possesses the property of coagulating albumen, in an eminent degree; is powerfully antiseptic, checking the putrefaction of meat; and effectually restorative of healthy action, when applied to old, fetid sores, and foul, ulcerating surfaces.

"Saliva and mucus are sometimes abundantly mixed with the gastric juice. The mucus may be separated, by filtering the mixture through fine linen or muslin cambric. The gastric juice, and part of the saliva will pass through, while the mucus, and spumous or frothy part of the saliva, remains on the filter. When not separated by the filter, the mucus gives a ropiness to the fluid, that does not belong to the gastric juice, and soon falls to the bottom, in loose, white flocculi. Saliva imparts to the gastric juice, an azure tinge, and frothy appearance; and, when in large proportion, renders it fetid in a few days; whereas the *pure* gastric juice will keep for many months, without becoming fetid.

"The gastric juice does not accumulate in the cavity of the stomach, until alimentary matter be received, and excite its vessels to discharge their contents, for the immediate purpose of digestion. It then begins to exude from its proper vessels, and increases in proportion to the quantity of aliment *naturally* required, and received. A definite proportion of aliment, only, can be perfectly digested in a given quantity of the fluid. From experiments on artificial digestion, it appears that the proportion of juice to the ingesta, is greater than is generally supposed. Its action on food is indicative of its chemical character. Like other chemical agents, it *decomposes*, or *dissolves*, and combines with, a fixed and definite quantity of matter, when its action ceases. When the juice becomes *saturated*, it refuses to dissolve more; and, if an excess of food have been taken, the residue remains in the stomach, or passes into the bowels, in a crude state, and frequently becomes a source of nervous irritation, pain and disease, for a long time; or until the *vis medicatrix naturæ* restores the vessels of this viscus to their natural and healthy actions—either with or without the aid of medicine.

"Such are the appearance and properties of the gastric juice; though it is not always to be obtained pure. It varies with the changing condition of the stomach. These variations, however, depend upon the admixture of other fluids, such as saliva, water, mucus, and sometimes bile, and, perhaps, pancreatic juice. The special solvent itself—the *gastric juice*—is, probably, invariably the same substance. Derangement of the digestive organs, slight febrile excitement, fright, or any sudden affection of the passions, cause material alterations in its appearance. Overburthening the stomach produces acidity and rancidity in this organ, and retards the solvent action of the gastric juice. General febrile irri-

tation seems entirely to suspend its secretion into the gastric cavity; and renders the villous coat dry, red, and irritable. Under such circumstances, it will not respond to the call of alimentary stimulus. Fear and anger check its secretion, also:—the latter causes an influx of bile into the stomach, which impairs its solvent properties."

The opinion entertained by some physiologists that the food is required to remain for some time, say an hour, in the stomach, before the process of chymification is begun, is proved to be unfounded. "The gastric juice is ready to commence its work of solution soon after the first morsel is swallowed." "That it does so is manifested by close observation of its action on food, in the healthy stomach. The doctrine of Wilson Philip and others, that the layer of food lying next the surface of the stomach is first digested, and in proportion as this undergoes the proper change, and is moved by the muscular coat, the next in turn succeeds to undergo the same change," is by experiment proved to be erroneous.

"From numerous examinations of the stomach," the doctor observes, "I feel warranted in saying, at least in the human subject, that there is a perfect admixture of gastric juice and food—that the particles of food are constantly changing their relations with each other—and that they are mixed with a quantity of fluid, the gastric juice, liquids that have been taken during the meal, and (as there has generally been observed a large proportion of fluid, even after a dry and solid meal,) I have been led to suspect a synthetic formation of water from its elements. This mixture is perfectly heterogeneous at first, and is kept in constant agitation, by the *churning* motions of the stomach. If the contents of the stomach be taken out in from thirty minutes to an hour after eating, it will be found to be composed of perfectly formed chyme and particles of food, intimately mixed and blended; sometimes in larger and sometimes in smaller proportions, according to the vigorous or enfeebled state of the digestive organs, or the quantity or quality of aliment taken. Most commonly, if the meal have been moderate, the process of digestion will continue in the portion taken out, when placed on the bath at a proper temperature, and the motions of the stomach imitated."

It has been very generally believed that *perfect* rest was most conducive to digestion. Dr. Beaumont's observations, however, go to prove that *gentle* exercise is more favorable to the healthy and rapid performance of the digestive process.

"On the subject of exercise or repose, during the digestion of a meal, there has been some diversity of opinion. It has generally been conceded, however, that a state of repose is most favorable to chymification. It has been said that during the digestion of aliment, the *energies* of the system were centred on the stomach, and

should not be withdrawn to any distant part; that the stomach becomes a "centre of fluxion,"* &c., &c. I protest, again, against the use of terms which have no definite meaning. I believe the benefits of science will be better subserved by adhering to facts, and the deductions of experiments, than by the propagation of hypotheses founded on uncertain data. From numerous trials, I am persuaded that moderate exercise conduces considerably to healthy and rapid digestion. The discovery was the result of accident, and contrary to preconceived opinions. I account for it in the following way. Gentle exercise increases the circulation of the system, and the *temperature* of the stomach. This increase of temperature is generally about one and a half degrees. Now, if the gastric juice be a solvent, its action is similar to other chemical solvents, and its rapidity is increased in proportion to the elevation of temperature. Of the reason, I leave others to judge. The effect is certain. Severe and fatiguing exercise, on the contrary, retards digestion. Two reasons present themselves for this—the debility which follows hard labor, of which the stomach partakes; and the depressed temperature of the system, consequent upon perspiration, and evaporation from the surface.

„Exercise, sufficient to produce moderate perspiration, increases the secretions from the gastric cavity, and produces an accumulation of a limpid fluid, within the stomach, slightly acid, and possessing the solvent properties of the gastric juice in an inferior degree. This is probably a mixed fluid, a small proportion of which is gastric juice."

Magendie, and some other physiologists have believed, that bile is generally introduced into the stomach, and ministers to the process of chymification. Dr. Beaumont remarks:

"Bile is not essential to chymification. It is seldom found in the stomach, except under peculiar circumstances. I have observed that when the use of fat or oily food has been persevered in for some time, there is generally the presence of bile in the gastric fluids. Whether this be a pathological phenomenon, induced by the peculiarly indigestible nature of oily food, or whether it be a provision of nature, to assist the chymification of this particular kind of diet, I have not as yet satisfied myself. Oil is affected by the gastric juice with considerable difficulty. The alkaline properties of the bile may render it more susceptible of solution in this fluid, by altering its chemical character. Irritation of the pyloric extremity of the stomach with the end of the elastic tube, or the bulb of the thermometer, generally occasions a flow of bile into this organ. External agitation, by kneading with the hand, on the right side, over the regions of the liver and pylorus, produces the same effect. It may be laid down as a general rule, however, subject to the exceptions above mentioned, that bile is not necessary to the chymification of food in the

stomach. MAGENDIE says, "I believe that, in certain morbid conditions, the bile is not introduced into this organ," (the stomach;) inferring, that in a healthy state, it is always to be found there. There can hardly be a greater mistake. With the exceptions that I have mentioned, it is never found in the gastric cavity, in a state of health; and it is only in certain morbid conditions that it is found there."

The sixth chapter of Dr. Beaumont's work, treats "*of the appearance of the villous coat and of the motions of the stomach.*" The following facts, having been obtained from ocular observation, are full of interest.

"The inner coat of the stomach, in its natural and healthy state, is of a light, or pale pink color, varying in its hues, according to its full or empty state. It is of a soft, or velvet-like appearance, and is constantly covered with a very thin, transparent, viscid mucus, lining the whole interior of the organ.

"Immediately beneath the mucous coat, and apparently incorporated with the villous membrane, appear small, spheroidal, or oval shaped, glandular bodies, from which the mucous fluid appears to be secreted.

"By applying aliment, or other irritants, to the internal coat of the stomach, and observing the effect through a magnifying glass, innumerable minute lucid points, and very fine nervous or vascular papillæ, can be seen arising from the villous membrane, and protruding through the mucous coat, from which distils a pure, limpid, colorless, slightly viscid fluid. This *fluid*, thus excited, is invariably distinctly acid. The *mucus* of the stomach is less fluid, more viscid or albuminous, semi-opaque, sometimes a little saltish, and does not possess the slightest character of acidity. On applying the tongue to the mucous coat of the stomach, in its empty, unirritated state, no acid taste can be perceived. When food, or other irritants, have been applied to the villous membrane, and the gastric papillæ excited, the acid taste is immediately perceptible. These papillæ, I am convinced, from observation, form a part of what is called, by authors, the villi of the stomach. Other vessels, perhaps absorbing as well as secretory, compose the remainder. That some portion of the villi form the excretory ducts of the vessels, or glands, I have not the least doubt, from innumerable, ocular examinations of the process of secretion of gastric juice. The invariable effect of applying aliment to the internal, but exposed part of the gastric membrane, when in a healthy condition, has been the exudation of the solvent fluid, from the above mentioned papillæ. Though the *apertures* of these vessels could not be seen, even with the assistance of the best microscopes that could be obtained; yet the points from which the fluid issued was clearly indicated by the gradual appearance of innumerable, very fine, lucid specks, rising through the transparent mucous coat, and seeming to burst, and discharge themselves upon the very points of the papillæ, diffusing a limpid, thin fluid over the whole interior gastric surface. This appearance is conspicu-

* Principles of Medicine, founded on the Structure and Functions of the Animal Organism. By Samuel Jackson, M. D., p. 349.

ous only during alimentation, or chymification. These lucid points, I have no doubt, are the termination of the excretory ducts of the gastric vessels or glands, though the closest and most accurate observation may never be able to discern their distinct apertures.

"The fluid, so discharged, is absorbed by the aliment in contact, or collects in small drops, and trickles down the sides of the stomach, to the more depending parts, and there mingles with the food, or whatever else may be contained in the gastric cavity. This fluid, the efficient cause of digestion—the true gastric juice of SPALLANZANI, I have no doubt—has generally been obtained, for experiment, by mechanical irritation of the internal coat of the stomach, produced by the introduction of a gum-elastic tube, through which it has been procured.

"The gastric juice never appears to be accumulated in the cavity of the stomach while fasting; and is seldom, if ever, discharged from its proper secreting vessels, except when excited by the natural stimulus of aliment, mechanical irritation of tubes, or other excitants. When aliment is received, the juice is given out in exact proportion to its requirements for solution, except when more food has been taken than is necessary for the wants of the system.

"When mechanical irritation by a non-digestible substance, as the elastic tube, stem of the thermometer, &c., has been used, the secretion is probably less than when the irritation has been produced by such substances, as are readily dissolved in the gastric juice. Alimentary stimulus, when taken into the stomach, is diffused over the whole villous surface, and excites the gastric vessels, generally, to excrete their fluids copiously; whereas the irritation of tubes, &c., is local, and produces only a partial excitement of the vessels, and a scanty flow of the gastric juice. Hence, the slowness in obtaining the clear fluid from the empty stomach, through the tube. I have never, on numerous trials, been able to obtain, at any one time, more than one and a half, or two ounces of this fluid, after the stomach had disposed of its alimentary matters, however long the period of abstinence had been. The discharge of this small quantity has generally been excited by the introduction of the tube. Ten, fifteen, or more minutes, were necessary to collect even this small quantity. Whenever fluid was obtained in larger quantity, as was sometimes the case, it invariably contained more than the usual quantity of mucus.

"On viewing the interior of the stomach, the peculiar formation of the inner coats are distinctly exhibited. When empty, the rugæ appear irregularly folded upon each other, almost in a quiescent state, of a pale pink color, with the surface merely lubricated with mucus. On the application of aliment, the action of the vessels is increased; the color brightened; and the vermicular motions excited. The small gastric papillæ begin to discharge a clear, transparent fluid, (the alimentary solvent,) which continues abundantly to accumulate, as aliment is received for digestion.

"If the mucous covering of the villous coat be wiped off, with a sponge or handkerchief, during the period of chymification, the membrane

appears roughish, of a deep pink color at first; but in a few seconds, the follicles and fine papillæ begin to pour out their respective fluids, which, being diffused over the parts abraded of mucus, restore to them their peculiar soft and velvet-like coat, and pale pink color, corresponding with the undisturbed portions of the membrane; and the gastric juice goes on accumulating, and trickles down the sides of the stomach again.

"If the membrane be wiped off when the stomach is empty, or during the period of fasting, a similar roughness, and deepened color appear, though in a less degree; and the mucous exudation is more slowly restored. The follicles appear to swell more gradually. The fluids do not accumulate in quantity sufficient to trickle down, as during the time of chymification. The mucous coat only appears to be restored.

"The foregoing, I believe to be the natural appearances of the internal coat of the stomach, in a healthy condition of the system.

"In disease, or partial derangement of the healthy function, this membrane presents various, and essentially different appearances.

"In febrile diathesis, or predisposition, from whatever cause—obstructed perspiration, undue excitement by stimulating liquors, overloading the stomach with food—fear, anger, or whatever depresses or disturbs the nervous system—the villous coat becomes sometimes red and dry, at other times, pale and moist, and loses its smooth and healthy appearance; the secretions become vitiated, greatly diminished, or entirely suppressed; the mucous coat scarcely perceptible; the follicles flat and flaccid, with secretions insufficient to protect the vascular and nervous papillæ from irritation.

"There are sometimes found, on the internal coat of the stomach, eruptions, or deep red pimples; not numerous, but distributed, here and there, upon the villous membrane, rising above the surface of the mucous coat. These are at first sharp pointed and red; but frequently become filled with white purulent matter. At other times, irregular, circumscribed, red patches, varying in size or extent, from half an inch to an inch and a half in circumference, are found on the internal coat. These appear to be the effect of congestion in the minute blood vessels of the stomach. There are, also, seen at times, small aphthous crusts, in connection with these red patches. Abrasions of the lining membrane, like the rolling up of the mucous coat into small shreds or strings, leaving the papillæ bare, for an indefinite space, is not an uncommon appearance.

"These diseased appearances, when very slight, do not always affect, essentially, the gastric apparatus. When considerable, and, particularly, when there are corresponding symptoms of disease, as dryness of the mouth, thirst, accelerated pulse, &c., no gastric juice can be extracted, not even on the application of alimentary stimulus. Drinks received, are immediately absorbed, or otherwise disposed of; none remaining in the stomach ten minutes after being swallowed. Food, taken in this condition of the stomach, remains undigested for twenty-four or forty-eight hours, or more, increasing the derangement of the whole alimentary canal, and

aggravating the general symptoms of disease.

"After excessive eating or drinking, chymification is retarded; and, although the appetite be not always impaired at first, the fluids become acrid and sharp, excoriating the edges of the aperture; and almost invariably produce aphthous patches, and the other indications of a diseased state of the internal membrane, mentioned above. Vitiated bile is also found in the stomach under these circumstances; and flocculi of mucus are much more abundant than in health.

"Whenever this morbid condition of the stomach occurs, with the usual accompanying symptoms of disease, there is generally a corresponding appearance of the tongue. When a healthy state of the stomach is restored, the tongue invariably becomes clear."

We refer our readers to the original work for information on the motions of the stomach, and for Dr. Beaumont's remarks on the uses of the bile and pancreatic fluid. From the great interest of Dr. Beaumont's book, we have been led to devote a large space to its examination; yet, although we have done so, we can assure our readers that to enable them to estimate the value of this gentleman's labors, they will require to peruse the whole of his experiments; and we do trust that our critical analysis, so far from satisfying the members of the profession, will only excite their attention and curiosity, and induce them to give a place in their libraries to the original work.

CHRONIC CATARRH OF THE EAR, RELIEVED BY LARGE DOSES OF TART. ANTIM.

By DR. J. Y. BASSETT, of Huntsville, Alabama.

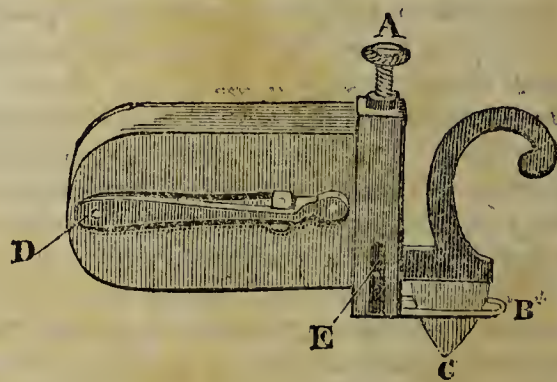
A negro girl, 16 or 17 years of age, of delicate constitution, accustomed to work in the cotton field, was brought to my house in the beginning of February, '33, laboring under the following symptoms: painful swelling behind and under the ear, great sensibility when handled, a purulent discharge from the ear, complete deafness on the affected side; her whole manner and appearance listless and stupid. She informed me her attacks had been periodical for several years about the same season, and generally lasted one or two months; that a former master, a physician, had failed to relieve her. I pursued the usual course, with but little effect; purging; blistering; warm fomentations, gave but little ease. Injections failed entirely,—this might have been owing to the unskilful manner of my first attempt to inject the Eustachia tube. About the fourth day of the treatment I opened a large abscess which had formed behind the ear: she was greatly relieved for more than twenty-four hours,

when all the painful symptoms returned. She never slept until nature was completely exhausted; and when the fatigue of watching became more painful than otalgia, she would sleep an hour or two in a chair, from which she seldom moved.

About the tenth day I gave her 5 grs. tart. e. and 5 drops tr. opii; repeated it three times that day; it vomited her freely; next day I doubled the dose; the vomiting ceased; the pain subsided; in a few days the swelling about the ear abated, and the discharge lessened, and hearing returned. I kept her under the influence of antimony for ten days, giving her ten grains of tartar, united with 5 drops laud. and 10 drs. tr. capsicum, every eight hours; she seldom vomited, and I gradually diminished the dose.

Upwards of one year has elapsed: I have seen my patient frequently; she is still a little deaf, and has once or twice had a purulent discharge from the ear, but has never complained of pain, or laid up a day on account of it.

IMPROVEMENT IN THE SPRING LANCET.—We have seen a spring lancet improved by Dr. T. M. Bennett, of Va., which we think will be a desideratum to professional gentlemen whose hands have lost that firmness so desirable in performing venesection. The principal improvement consists in a slide which works up and down by a thumb screw. The base of this slide rests on the vein, and has an opening through which the blade passes; it is raised or lowered by the thumb screw at the top, and the depth of the incision regulated with the utmost precision. When the slide is placed on the vein, the most tremulous hand can bleed with perfect ease and safety. The following plate presents the most important improvements in the lancet.



A. The thumb screw which raises or lowers the slide, and consequently regulates the depth of the incision.

B. The projecting piece or base of the slide through which the lancet passes to the vein.

C. The blade of the lancet.

D. The lever or spring.

E. The groove or slide to which the serew A is attached.

It will be perceived at a glance that the slide B can be raised up to the base of the lancet, or lowered to its point, and thus the depth of the incision regulated at will. We understand that Dr. Bennett intends taking out a patent for the improvement.

CLINICAL LECTURES ON SURGERY, DELIVERED BY BARON DUPUYTREN, DURING THE SESSION OF 1833.

[Revised (before translation) by the Baron himself in the fasciculi of his "Leçons Orales de Clinique Chirurgicale," published periodically by G. Baillière, Paris.]

(Concluded from p. 200.)

4. The causes of diffuse phlegmon, gentlemen, are numerous. It frequently is the consequence of venesection, even when the operation has been perfectly well performed, and the instrument clean. You will find examples of this affection described in the works of old authors, and I have had occasion to observe it myself more than once. The nature and cause of the accidents which sometimes succeed venesection have not been well understood until within the last few years. At one time authors attributed them to the puncture of a nerve; at another to the injury of some tendon or fascia. When the lymphatic vessels were discovered, the sole cause of all these disorders was attributed to the inflammation of that system; and, finally, some physicians regard phlebitis as giving rise to all the accidents which may follow venesection. When diffuse phlegmon is the result of that operation, the small opening made by the lancet sometimes closes up as it ordinarily does, and remains closed; sometimes it heals and then opens again; but in most cases cicatrization never takes place. The limb soon becomes enormously swelled, and the tumefaction may extend to the upper arm, as far as the axilla, if it be not checked by means suited to arrest the inflammatory process. Sometimes the vein participates in the general inflammation, sometimes it is unaffected altogether. Let us select an example.

CASE 3.—*Diffuse Phlegmon of the right lower Extremity, following Venesection of the Foot.*—You have seen, Gentlemen, a young washer-woman, of twenty-five years of age, of good con-

stitution, who had been received into the medical wards for a suppression of the menses. It was judged necessary to bleed her at the foot. The operation was performed, but, as I must confess, very clumsily; the lancet was plunged three times into the skin, over the external malleolus, without drawing blood. A pupil somewhat better instructed soon arrived, and opened the left saphena vein. The first cut made by the lancet had produced a good deal of pain, which persisted, and in ten days the foot became considerably tumefied; the swelling increased, and extended up the leg; the skin was red, warm, and tense; there was excessive pain, accompanied by burning fever and sleeplessness. Leeches were frequently applied in great numbers, the leg and foot were covered with emollients, cataplasms and warm-baths were ordered. But the inflammation continued to extend in spite of these means; it reached the knee; the whole leg was enormously swollen, and fluctuation could be felt in some points. In a very short time the whole lower extremity was inflamed, delirium came on, followed by sickness of the stomach, diarrhoea, and a morbid sensibility of the abdomen. In this state the patient was transferred to the surgical wards twenty days after the accident. We immediately drew blood from the arm, and made two long incisions on the dorsum of the foot, which gave exit to a great quantity of fetid, sanious pus; finally, a large deep incision was practised along the upper and inner part of the leg, where a considerable collection of pus also existed. This patient continued delirious during the whole night, and the vomiting persisted to the morning. (Twenty leeches over the epigastrium.) On the third day the skin covering the dorsum of the foot became gangrenous, and the extensor of the toes were exposed. The delirium had ceased, but the patient was excessively feeble; she was still troubled by diarrhoea, and the thigh was the seat of the most intense inflammation and tumefaction. (Forty leeches to the thigh.) Fourth day. The fever was much diminished, the thirst moderate, and but little diarrhoea; but a fresh collection of pus was formed on the inner and lower side of the thigh, a large incision was made over the part, and a great deal of fluid discharged; the lips of this incision, as of the others before practised, were kept asunder with pledgets of lint, and the limb was enveloped in an emollient cataplasm. As the skin of the foot and leg became every day more extensively gangrenous, the question presented itself for our examination, whether we

should amputate at once or not. But at what point was the operation, if practicable, to be performed? You have already been told that the disease extended up the thigh, which was the seat of purulent infiltration; besides, the fever was still very violent, and the diarrhœa persisted; these circumstances seemed to me to contra-indicate the operation, and my whole care was consequently directed to diminish the intensity of the accidents, to arrest the diarrhœa, calm the fever, and support the strength of the patient. These different indications were carefully attended to, and the limb dressed twice a day. But the inflammation did not seem to give way in any positive manner before the termination of six weeks; the extensor tendons were detached, and came away in the dressings; new skin began to be formed; the fever and diarrhœa had disappeared; we had thus reason to congratulate ourselves for temporizing,—for giving nature time to employ her resources, and thus preserving to the patient so essential a member. In about two months she had recovered her natural complexion and appetite; she slept well, and was free from all pain; the incisions of the leg and thigh had healed up, and the wound occasioned by the destruction of the integument was covered by a layer of fleshy, vascular, granulations. The dressing was now confined to the application of some charpie, and compresses, and the patient was strictly enjoined to avoid all motion which might tend to break up the new-formed cicatrices. The exuberance of the granulations was checked by the application of nitrate of silver every three days. Near the end of the third month, we noticed a small purulent collection over the external malleolus of the right foot; this was opened, and healed in eight days; in a short time the secretion of the menstrual fluid was re-established, the health of the patient made rapid progress, and she left the hospital, though still unable to make much use of the foot.

Having thus explained the unfortunate consequences of venesection, let us return to the causes of diffuse phlegmon. The ligature of a vein may also give rise to this affection, and in that case, as in the former, the vein may either be inflamed, or free from any disease. Diffuse phlegmon is one of the most frequent accidents determined by the application of a morbid principle to the skin or cellular tissue; an accident to which all those who open bodies or dissect much are peculiarly exposed. In some rare cases, the phlegmon is neither accompanied by inflammation of the lymphatic vessels, nor engorgement of the

glands in the axilla; however, tumefaction of those glands, redness of the skin along the direction of the lymphatic vessels, and pain situate in the same region, are the symptoms which we observe most commonly. Excessive fatigue, produced by a long forced march, is also a very frequent cause of diffuse phlegmon; and in that case the disease becomes so intense, is accompanied with such dangerous symptoms, that death almost invariably results. This severity depends on two causes; one local, the other general; viz. the fatigue of the lower extremity, and the exhaustion of nervous force by the prolonged action of the muscles. Persons affected with comminuted fracture, especially when the accident is occasioned by a gunshot wound, are very subject to consecutive inflammation of the parts surrounding the fractured bone; this inflammation often assumes the character of diffuse phlegmon: we also observe this species of inflammation as a frequent consequence of capital operations, as a complication of various wounds, and particularly of burns; it is also occasionally produced by the application of acrid matter to the cellular tissue, and of topical remedies, apparently little irritating to the skin. Thus we have seen it succeed to the application of an ammoniated liniment over leech-bites. Numerous observations prove that it may be developed by a slight prick, a small wound, independently of poisonous or morbid principles by the bite of a venomous animal, by any considerable muscular effort, &c. Finally, in some cases, diffuse phlegmon appears spontaneously, without our being able to assign any cause for the existence of inflammation. Let us illustrate the principles now laid down by some facts.

CASE 4.—*Extensive deep-seated Phlegmon of the Left Upper Extremity, produced by a bite on the Little-Finger.*—Boyer, a mason, 27 years of age, while playing with one of his comrades threw him on the ground; the latter became angry and bit the little finger of his friend rather severely, producing much pain and the loss of a good deal of blood. The pain persisted, and on the following morning the hand became much swollen; the tumefaction quickly extended forwards to the forearm. Ten days afterwards, when the patient entered the Hotel Dieu, we found the left arm swollen to double the size of the other; the skin was warm, painful, and very tense. On the anterior surface of the little-finger we found a small transverse wound, which had divided the skin, cellular tissue, and the tendinous sheath, and which discharged a small quantity of whitish pus.

An obscure sense of fluctuation was felt in the palm of the hand. We practised a longitudinal incision in this part, and gave exit to a great quantity of purulent fluid. The limb was now placed, demiflexed, upon a pillow; and covered with emollient cataplasms. Beside the local symptoms there was violent fever, the pulse was rapid, the breathing hurried, the skin hot, and the face animated. (Bleeding from the arm, cooling draught, strict diet.) On the eleventh day after his accident, the second of entrance into the hospital, the patient felt much better; the general symptoms were alleviated; during the night a spontaneous opening was formed on the ulnar edge of the hand; but as the upper part of the forearm still remained tense and painful, thirty leeches were applied to that part. On the fifteenth day we noticed a well-marked fluctuation near the head of the radius, the abscess was opened by a large incision, and the edges of the wound separated by charpie; the fever had now completely disappeared. On the eighteenth day we remarked with regret that the patient was affected with some colicky pain and a little diarrhoea, a complication always dangerous in this sort of case. (Emollient lavements; in each eight drops of laudanum.) In eight days these symptoms of intestinal irritation had disappeared, but the inflammation continued to extend, and we were compelled to make an opening on the inner side of the arm to give exit to the purulent matter. Shortly after a second abscess was opened on the forearm, and from that period the patient's health rapidly returned, and his cure was complete in less than two months after the accident.

CASE 5.—Diffuse Phlegmon of the Right Upper Extremity, produced by the introduction of a Thorn into the Middle-Finger.—Spontaneous Diffuse Phlegmon of the lower Extremity.—Death.—Renant, 47 years of age, but presenting all the appearance of premature old age, accidentally introduced a thorn into the middle-finger. She was unable to explain clearly the phenomena which succeeded, but it appeared that the finger became swollen, that the tumefaction soon extended to the hand, forearm, and arm, and that symptoms of gastro-intestinal irritation set in. At the period of her entry into the hospital, three weeks after the occurrence of the accident, the whole of the right arm was three times larger than in the natural state; the pulse was rapid, the skin dry and warm, the tongue dry and the abdomen painful upon pressure. The dresser on duty immediately drew blood from the arm, and covered the limb with a poultice, and in the

morning forty leeches were applied to the most inflamed part. On the fifth day the patient for the first time complained of a pain in the knee. On examination we found it much swelled with fluctuation, but the skin was not discolored. (Twenty leeches and poultices.) On the seventh day abscesses opened on the hand and along the lower extremity of the ulna, denuding the bone. The tumefaction of the arm was much diminished, but that of the lower extremity had increased and extended to the thigh and calf of the leg. The gastric symptoms also became more intense; the head was attacked, and the patient died on the ninth day in spite of the most active measures.

The facts I have related have given you an idea of the characters of diffuse phlegmon, of its danger, progress, termination, and the treatment which is adapted to it; but it is our duty to enlarge a little on these different points, and this I shall do on an early occasion.

ON THE TREATMENT OF GLEET.

By J. W. MACKNEE, Esq., Surgeon, Glasgow.

I CONSIDER a gonorrhœa as having terminated in gleet, when the discharge continues, whether purulent or not, should the pain in making water have ceased. Very frequently the patient applies to us when in this state. The discharge, probably, during the day, has every appearance of mucus, and it is only on awakening in the morning and compressing the urethra, that a small quantity of pus makes its appearance at the orifice. Should the complaint have been of long continuance, I think it in every case prudent, before proceeding to any plan of treatment, to pass a bougie along the urethra, to ascertain whether or not the discharge may not possibly depend upon stricture. Having satisfied myself in this respect, I have for some time past been in the habit of ordering the patient the following mixture; but I must confess that, from its extremely disagreeable taste, I do not always succeed in inducing him to continue it for the requisite time.

℞ Balsam Copaiv.,
Olii Terebinth., a a ℥iiss;
Tinct. Lyttæ ℥ij;
Tinct. Muriatis Ferri ℥iiss;
Mucil. Gum. Acac. ℥iv. M.

Of this a tablespoonful to be taken at bedtime.

During the last twelve months I have had a considerable number of cases of gleet under my care, and, except in one instance, the discharge

has always been arrested by a few doses of this mixture. In no case, except in the one alluded to, have more than six spoonfuls been necessary. It sometimes occasions considerable nausea, but after perseverance for a day or two, that inconvenience frequently disappears, or, at all events, is very much mitigated. Strangury to a slight extent is not unfrequently produced, but is by too many to be regarded as an unfavorable symptom. The medicine, however, in the event of stranguary becoming severe, may be omitted for a day or two, and afterwards resumed, during which it may be necessary to give small and repeated doses of the carbonate of soda or super-tartrate of potass, in common gruel, or linseed tea, until the irritation of the urinary organs has subsided. This treatment usually answers sufficiently well. In some cases it may be necessary to give the mixture without the cantharides; but this I have only found requisite on two occasions. A Seidlitz powder, or a teaspoonful of the sulphate of magnesia, may be taken in the morning before getting up, should any feeling of nausea remain, and fifteen or twenty drops of laudanum may be advantageously added to each dose of the medicine, provided it has had any tendency to purge. Attention at the same time should be paid to diet. The food should be plain and plainly dressed.

Six doses will, in general, be sufficient to arrest the discharge, but in order to prevent a relapse, the *Terebthni e Chio* pills should be afterwards taken for at least eight or ten days. Four grains of turpentine, with a quarter or half a grain of the cantharides will be sufficient, taken three times daily before meals. During the whole period abstinence from wine and venery must be strictly enjoined.

I have just now before me the notes of eleven cases of gleet, treated in the way I have ventured to recommend, within the last four months, and out of the eleven, ten were cured in less than six days. Of these cases, some were of ten and twelve months' standing, and one of two years and three months' duration. In one gentleman with whom the discharge had continued for nine months and who had taken before he applied to me, large quantities of copaiba and cubebs without receiving any benefit, three doses effectually stopped the discharge. I was desirous in this instance that the patient should persevere with the medicine for a few days longer, but it occasioned such extreme nausea, that no persuasion could induce him to continue it any longer. He consented, however, to take the *Terebthni e Chio*

pills in the form I have already mentioned, and has been so fortunate as to escape a return of his complaint.

In one very troublesome case which I had lately an opportunity of observing, strangury occurred, and continued very troublesome for two days. A nocturnal emission took place, along with which there was passed a considerable quantity of blood and pus. A dull obtuse pain had been for some days previously experienced behind the bulb of the urethra. A bougie was passed daily for some weeks, and latterly smeared with the *Unguentum Hydrarg. Nitrat.* Under this treatment the patient has recovered, after his complaint had for months resisted nearly every remedy. The abscess which took place in the urethra was, I have no doubt, caused by the irritation of the medicine.—*Lancet.*

DISCOVERY OF A LARGE EGG-CUP IN THE ILEUM OF A MAN.

By WALTER C. DENDY, Esq., M. R. C. S. L.,
Stamford Street, Blackfriars.*

THE case which I am about to relate is one of some pathological interest, which I at one time thought to have presented to the Society, as a peculiar case of hernia, but which, during dissection, displayed circumstances which render it a physiological curiosity of no common kind.

— Adams, a man 60 years of age, had been afflicted with inguinal hernia 25 years, which, although very frequently descending into the serotum, had never been strangulated. Three months previous to his death he labored under diarrhœa, which terminated in dysentery, from which he was partially relieved. Three weeks before his death intense abdominal pain was felt, with retching, &c., the pulse being 95, and rather full. The inflammatory action was diffused, and no particular uneasiness was referred to the hernia, which was apparently reducible. Leeches and the antiphlogistic plan restored the patient to comparative ease. About a week subsequent to this the acute symptoms returned, with other signs, indicating strangulation or obstruction,—such as stercoraceous vomiting and singultus, tumefaction of the abdomen, &c.—*the bowels however repeatedly ejecting very scanty fluid evacuations.* On minute examination I discovered a very small knuckle of intestine deeply situated, which appeared to be intimately adherent to the

* The case here related was read before the London Medical Society, December 16, 1833.

mouth of the sac. As there was in this tumor extreme tenderness, I did not hesitate, after a brief endeavor to return it by the taxis, to propose an immediate operation. The friends consented, but the patient refused, stating no reason but that he did not like to be cut. I therefore contented myself with palliative means, having by repeated gentle pressure returned the knuckle to the mouth of the sac, after which the stercoraceous vomiting ceased. He sunk gradually, the abdomen becoming more and more distended, and on the 4th of December he died at three p. m., without having at any time during his illness made the slightest allusion to the circumstance, which was eventually proved to have been the essential cause of his severe disorder.

I examined him on December the 5th, at 11 a. m., in the presence of Mr. Stephens, Mr. Brown, my brother, and two other gentlemen.

The coats of the tumor were adherent, forming one extremely thin covering; there was no intestine or omentum in the sac, the lining of which was converted into a pulpy mass, and contained a small quantity of dark grumous fluid. The hernia was oblique, but, by the close approximation of the rings, had appeared to be *direct* during life, as is often seen in very old herniæ. The intestine (a fold of the ileum) was adherent to the neck of the sack. On opening the abdomen the small intestines were seen much distended and discolored, and on turning the superior folds aside, my finger came in contact with a hard substance which projected through the coats of the intestine. This intestine was the cross-fold of the ileum, and on further examination we were astonished to discover, through its attenuated coats, an earthenware egg-cup closely impacted within it,—the beveled and indented edge of the cup resting on the spine,—the broken stem of the cup, which projected through the bowel, near the crista of the left ileum. Immediately beyond the mouth of the cup, which pointed *downwards*, relatively to the course of the intestine, and was nearly filled with liquid feces, the ileum turned towards the left groin, where it formed the adherent hernia, and then again crossed towards the cæcum, the length of bowel between the cup and the cæcum being about ten inches. There was extensive adhesion between the two folds of the ileum and the peritoneum, about the mouth of the cup,—ulceration having commenced through the coats, from the cup to the groin, evidently indicating the commencement of a process by which Nature intended to dislodge the extraneous body. At

this time it was an object of my solicitude to ascertain, as far as morbid appearance could decide, by what channel this cup entered the alimentary canal. I therefore requested my friend, Mr. Stephens, (as I was engaged with my pencil at this point,) to trace the colon from the cæcum downwards. This inspection demonstrated the whole course of the large intestines to be in a comparatively healthy condition,—*the colon decidedly so*,—and the ileo-cæcal valves perfect,—the caliber of these intestines being rather contracted from their symmetrical proportion. The small intestines, on the contrary, the ileum especially, were extremely distended and discolored,—the graduated tints of crimson and dull purple evincing long-continued disease, which was still further confirmed by numerous patches of ulceration. The villous coat of the ileum was of a dull red color, and extensively disorganised.

Having thus briefly related the case to the Society, I would observe that the interesting points for discussion are, the *relative* importance of the cup and the hernia, and the mode of ingress. It is probable as the cup had traversed so far, that it would have reached the cæcum, perhaps the rectum, had not the hernia offered an insuperable barrier; and that on this opposition the vis mediatrix naturæ had commenced that process which, though in itself comparatively salutary, had established all the morbid phenomena in the vicinity of the hernia. Then, as regards the mode of introduction of the cup, (which I may propose as a question,) my own confident opinion is, that it was taken by the mouth. The healthy condition of the large intestines, and, above all, of the ileo-cæcal valves, disprove, I think, the notion of its being introduced per anum. If the fræna morgagni did not efficiently oppose its passage, still such violence would they experience by the intrusion of so large a body, that the lesion would be evident on dissection. It is difficult, too, to credit an inverted action so powerful as to draw up such a body to so intricate a position, and even beyond an almost constantly descended hernia. The disease and distention which pervaded the course of the small intestines, and the *dilated condition of the pylorus*, which I believe I have omitted, must incline us, I think, to the conviction of the cup having been *swallowed*, although the physiology of deglutition, and the relative anatomy of the fauces, especially the process of the sphenoid bone, render it one of the most curious instances of which we have any record.

[The following engraving exhibits a representation of the cup. The size and figure are preserved in the drawing with exactness.—*Rep. L.*]
—*Lancet.*



This singular case was given in the Register and Library some time ago; and it is again presented to accompany an accurate plate representing the cup.—Eds.

[From Cyclopæd. of Prac. Med., p. 45.]

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION.

By EVORY KENNEDY, M. D. Dublin, pp. 288.

II. SIGNS OF PREGNANCY AND DELIVERY.

By W. F. MONTGOMERY.

A MEDICAL man cannot possibly be long, or extensively engaged in the actual practice of his profession, wherever be the field of his labors, or the department of the science that he follows, without meeting with numerous cases, which are rendered doubtful and perplexing, by the difficulty of accurately determining, whether a woman be pregnant or not: the physician knows well that he ought to modify, or even alter his treatment of other existing affections, if the womb be at the time engaged in its special functions of forming and developing the embryotic germ; he knows well that the symptoms of every disease are often curiously blended with, and masked and rendered obscure by the co-existence of such a state; that the very state itself gives rise to a host of Proteian maladies, which defy alike nosological arrangement, and therapeutic relief;

that the mind, as well as the body suffers singular changes; the mild and amiable becoming irascible, morose, and fretful; the contented and happy forgetting their former cheerfulness, in capricious repining, and whimsical extravagancies; and in short that his moral and corporeal treatment must be suited to the particular state of the system at the time.

Equally necessary is it to the surgeon to attend to the influence of pregnancy on those diseases, which are said to appertain to his sphere; he would be unwilling for example to perform any serious operation, which did not require to be done immediately, or he would at least be prepared for the probable occurrence of miscarriage, and regulate his conduct accordingly; he would remember that some maladies are inevitably aggravated by the presence of a fœtus in utero, and thus avoid disappointment to himself, as well as vexation, if not positively hurtful interference to his patient—and that others are temporarily arrested in their progress, or even altogether dissipated during pregnancy. But if this knowledge be of so much consequence to the general physician and surgeon, how doubly requisite is it for him who devotes himself specially to obstetrical practice. The public expect, as a matter of course, that an accoucheur be on all occasions able and ready to pronounce upon the existence or absence of impregnation, even when the woman herself is uncertain about it.

Unaware of the difficulties which sometimes surround the question, they suppose that a doctor, and especially if he be a married man! should and ought to know at once, whether the fond hopes of the mother be rational or not; and they are apt, on receiving an equivocal reply, to attribute it to ignorance, inexperience, greedy self-interest, or some other equally discreditable motive. Now, although the “mens sibi conscia recti,” regards as naught the insinuations of angry disappointment, or the abuse of malicious, although self-condemning shame, it cannot but be the desire of every honest and enlightened practitioner, that he was always enabled to decide at once and definitively on the interesting subject of existing pregnancy. The tenderest feelings of which the human breast is susceptible, would thank him for the information. The guilty consequences of concealment might often be prevented; the ridicule and sarcasm of the scurrilous world might be warded off; virtue might be protected from accusation, and crime be brought to proper punishment. We doubt that there is a situation in which a medical man

can be placed professionally, so full of weighty consequences, and of anxious interest, as that of an accoucheur, in some cases, when called upon for his opinion as to the existence of pregnancy; the character, and all that is dear to a chaste woman may be foully blackened and ruined in a moment; property may be alienated from the path of justice to that of iniquity and vice; and even life itself may be, as we know that it has been more than once, sacrificed on the shrine of professional ignorance.

If then such fearful consequences may flow from medical evidence, how important is the duty of possessing an intimate acquaintance with every possible occurrence which can change or modify our opinions; and, unfortunately, on no theme of medical science is there more ambiguity and greater discrepancy of sentiments, than on the diagnosis of the pregnant state. True it is, that, even with the willing and rational assistance of the patient herself, the signs are sometimes so obscure and perplexingly variable, as to defy all confident assertion, and we are fairly obliged to confess that time alone can solve the problem; little wonder it is then, that the difficulties are ten-fold increased, when we have to combat with wilful deceit and false assertion on the one hand, or with the self-created imaginings of a longing fancy on the other. We must exercise all our tact and address in drawing out one particle of truth from the heap of lies or of nonsense which may be crammed into our ears; and nothing more strikingly exhibits the lynx-eyed sagacity of the skilful physician, and the rash forwardness of the impudent pretender, than the different conduct of the two upon such an occasion. The ever memorably-absurd case of Joanna Southcote, to which we shall allude more particularly in the sequel, is an apt illustration of these remarks. We now proceed to examine some of the most important of those evidences or signs of pregnancy, by which medical men are accustomed to be guided, in determining the existence of that state.

For the convenience of arrangement, as well as for the practical utility of an easy remembrance, we shall briefly consider them in a four-fold point of view. The first embrace all those for the knowledge of which we are indebted solely to the patient herself, or to her immediate attendants, and which, for want of a better term, we shall call "oral," in contradistinction to the other three, which are ascertained by the physician himself, either with his eyes, his hands, or his ears, and may therefore aptly enough be

termed, the visible, the tangible, and the audible signs of pregnancy. Without alluding to the uncertain and only occasional feelings which some women experience at the moment of conception, viz. those of intense, and almost maddening pleasurable excitement, and of pain, or something very like it, darting through their pelvis to the back, quickly followed by a state of drowsy exhaustion, we may mention that the female system very generally indicates soon, the curious change which has taken place, in one of its most important functions. There is a fretfulness or feverish irritability both of mind and body; the pulse becomes quickened, pains are felt in the loins and through the stomach, the headaches, and the organs of sense are sometimes unusually sensitive; the patient is easily agitated and alarmed; the bowels are either confined, or have a tendency to be relaxed, and not unfrequently there is considerable annoyance in passing water.

In the course of one, two, or three weeks, generally, the stomach begins to announce its sympathetic disturbance, so well known under the name of "morning sickness," and at this period sometimes, although it is usually later, the mammae become swollen, painful, and tingling.

Now all these signs or symptoms of pregnancy may occur before the time at which the female should otherwise menstruate, and she, therefore, looks forward to the absence or return of this discharge as a confirmation, or not, of her suspicions. The vulgar, indeed, have always regarded the stoppage of the monthly courses, in a woman who was enjoying sexual connexion, as one of the surest, or at least of the most probable, indications of conception; and the opinion which is founded upon general observation is, doubtless, quite correct in the main; but if you tell a woman that it is quite possible for her to be in the family-way, and yet continue to menstruate, she will scarcely credit you, and little wonder is it, when we remember that some of the most experienced accoucheurs of modern times have distinctly stated—"that they never met with a single instance of any female continuing to menstruate when she was pregnant." Such are the words of the eminent Denman, no mean authority in midwifery. Yet read the conflicting assertion of Dr. Blundel.

"We must not conclude that a woman is not pregnant merely because she menstruates; for although doubts may be raised respecting the continuance of the catamenia during the whole term of gestation, yet I have repeatedly met with

cases of pregnancy, in which the catamenia have continued to flow during the first two or three months; indeed this, notwithstanding Dr. Denman's assertion to the contrary, may, I think, be looked upon as by no means very uncommon."

Mauriceau tells us of a horrible case, which occurred in Paris in the year 1666. A woman was executed, although she swore that she was several months gone with child; the subject was referred by the judge to some persons, who were appointed to visit her. They reported that she was not pregnant—"because she had her monthly courses." On dissection, a four-months' foetus was found in utero!!

From the almost unanimous opinions of accoucheurs of the present day, we are, therefore, bound to admit the possibility of the catamenia flowing for one, or for several successive periods, after impregnation; and our own experience confirms its accuracy. It has been said by some, that such discharges are not truly menstrual, but rather sanguineous, proceeding from the rupture of small vessels about the neck of the womb, and different authors have proposed means to distinguish the one sort from the other.

We are told of one eminent accoucheur, who placed so much dependence upon his knowledge of the sensible properties of the genuine catamenia, that he was in the habit of having towels sent to him from considerable distances, in order that he might distinguish the nature of the discharge from the stains. It has often indeed appeared to us rather singular, that women themselves should seldom or never be aware that there is any difference between the stains left by the menstrual flow, and those left by blood. We have often inquired of them, but never met with one who seemed to know that they were different; and the very custom of females resorting to the expedient of staining their linen with blood, for the purpose of deception, (a deception which very often succeeds with their own sex,) is another proof of it. As the menstrual fluid contains little or no fibrine, it does not properly coagulate, and, consequently, does not stiffen linen as blood does. Capuron says—"il faut exiger, alors, que les parties soient lavées avec l'eau tiède;—si le sang ne reparait pas, le cas est suspect." But we have heard of tricks of science to baffle this test; one of these is, to let a stream of blood flow into a cup of boiling water, and then to use this fluid as the dye—and another, which, by the bye, we accidentally discovered, when making some experiments on the action of different chemical agents on fresh-drawn

blood, consists in dropping strong liquor ammonia into it. The following short notice we marked down at the time:—"The ammonia immediately caused the blood to assume a much darker color throughout; only at the edges and on the sides of the cup, when it was inclined, it exhibited a pale redness; it also became thinner, and might be well compared to what is called 'sanguinous gore.' Six hours afterwards, the blood presented much the same appearance—it showed no signs of separation into serum and clot, but remained quite fluid, dark-colored, and tinging the inside of the cup with a pale reddish layer. When linen was stained with it, the spots resembled a good deal those from the menstrual discharge."

Although, however, we may be assisted somewhat in distinguishing the two sorts of stains, by attending to these marks we have noticed, it is right ever to keep in mind, that it is never safe to trust to them alone, and for this good reason, viz., that not unfrequently are the two discharges blended together in ordinary health, some of the small vessels giving way at the very time that the secretion is going on. No less unsatisfactory is the absence of the catamenia, as an indication of pregnancy, in another point of view; it is not, as is too well known, a symptom of this state exclusively, for during nursing, in chlorosis, in general and ovarian dropsy, in many chronic diseases, especially of the womb itself, the secretion is stopped; and what adds much to our embarrassment is, that the very stoppage, or at least the state of the system with which it is connected, is very often attended with the other signs of impregnation—the tumid belly, the haggard looks, the morning sickness, and the painful breasts; add to these sometimes the counterfeited feelings of quickening, produced by the rolling about of wind in the bowels, or a convulsive twitching of the abdominal muscles, or by the pulsations of the aorta, &c. This last-mentioned sign, we mean that of quickening, is, indeed, an important one to be rightly understood, not only as to the varying characters of its actual occurrence, but also in regard to those phenomena which may stimulate and be mistaken for it. It has acquired a very improper and a very dangerous distinction, from the legal consequences affixed to its having truly happened, or believed to have happened.

[TO BE CONTINUED.]

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OF

MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JUNE 11, 1834.

No. 27.

[From Cyclopæd. of Prac. Med., p. 45.]

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION.

By EVORY KENNEDY, M. D. Dublin, pp. 288.

II. SIGNS OF PREGNANCY AND DELIVERY.

By W. F. MONTGOMERY.

(Continued from p. 224.)

THE terms "quick with child," "to be pregnant of a quick child," and such like, ought to be erased from the vocabulary of the law, as we shall explain more at large at a subsequent part of this paper; for they imply a most ignorant presumption, and are derived from the vulgar prejudices, that the child in utero does not begin to live until the mother has felt the quickening motion. With regard to this symptom, no medical man in the present day will attach too much importance to it, when disjoined from, and unattended with, the other signs. The forcible and pithy observation of Dr. Conquest, in his evidence upon the Claims to the Gardiner Peerage, is quite true:—Many old women, who are determined to have children when they marry late in life, and many single women who wish not to have children, are very apt to be deceived." We have read of a case, where not only the lady vowed that she had felt the motions of the child within her, but also her husband, a medical man, too, was equally assured that he had recognized the kicking and thumping of the little one through the abdominal parietes; and yet the pregnancy was one of some watery cysts in the uterus. The knowledge of such facts ought never to be lost sight of; and their importance is enhanced, by the occasional completion of genuine and perfect pregnancy, without this symptom having been even once recognized by the patient.

VISIBLE SIGNS OF PREGNANCY.

The most important of these are derived from the inspection of the mammæ, of the abdomen, and of the urine.

The mere enlargement and painful state of the mammary glands are not much to be depended upon, as the same changes take place in a multitude of other affections, especially in whatever involve the generative organs; we shall, therefore, limit our remarks, at present, to the subject of the dark circle, or areola, which is formed round the nipples of pregnant women. Here, as upon so many other occasions, we shall be obliged to admit the truth of the old taunting proverb—"doctors differ." Drs. Smellie and Wm. Hunter regarded the formation of this dark ring, as proof positive and conclusive of pregnancy; and the latter eminent physician is "said to have placed such confidence in it, that he on one occasion pronounced a female subject, in the dissecting-room, pregnant upon this single sign, although the hymen was perfect; and his opinion, on dissection, proved correct.* On the other hand, Dr. Denman, with all his practical opportunities and acute powers of discrimination, has arrived at a very different estimate of its value."

Dr. Montgomery supposes that much of the discrepancy of opinion upon this subject has arisen from inaccuracy in observing and describing the essential characters of the true areola; too much attention has been paid to the mere change of color, and too little to the other accompanying phenomena. He, therefore, adduces the des-

* See Lowder's MS. Lectures.

cription left by Rœderer, as the only proper test by which to judge of the value of this sign. The words are—

“Menstruorum suppressionem mammarum tumor insequitur; quocirca mammæ crescunt, replentur, dolent interdum, indurescunt: venæ earum cœruleo colore conspieuæ redduntur, crassescit papilla, inflata videtur, color ejusdem fit obscurior, simili colore distinguitur discus ambiens qui in latitudinem majorem expanditur, parvisque eminentiis, quasi totidem papillulis, tegitur.”* 9.

All these individual appearances ought to be observed, and, in addition to them, a soft and moist state of the integument, and occasionally a slight oozing from the little glandular follicles, sufficient to damp and color the woman's inner dress. We are not to expect to find these changes before the end of the second month; at the end of the fourth, they are generally perfected. Dr. M. is inclined to place very considerable confidence in the indications to be drawn from the state of the nipple and of its areola. When all the appearances above described are coexistent, he says, “they are marks of great value, and in experience have never deceived us; and we certainly never saw any other condition of the part produced by disease, which could possibly be mistaken for them.”

The secretion of milk, or of a milky fluid, from the breasts, is a sign which we cannot well rely upon; for not only can some women, who have had children, work a little milk out at all times, but old women and young maids, and even our own rougher sex, have occasionally acted the part of a wet-nurse—see Humboldt's Personal Narrative, and the Bishop of Cork's paper in Phil. Trans. for 1741.

The other ocular signs of pregnancy, such as the size of the abdomen, the protrusion of the umbilicus, the swelling, œdema, and varicose state of the lower extremities, and the peculiar sharpening of the features, although worthy of notice, are of very inferior value if taken by themselves. The chemical test lately proposed by M. Nanche, has been found by Mr. Kane, of Dublin, to be quite inapplicable. M. Nanche had stated—

“That pregnancy may always be detected by allowing the urine of pregnant women or nurses to stand for some time, say from thirty to forty hours, when a deposit takes place of white, flaky, pulverulent grumous matter, being the ca-

seum or peculiar principle of the milk formed in the breasts during gestation.” 56.

The conclusions which Mr. Kane drew from his experiments were the following:—

“That a white flocculent precipitate, similar to that described, subsided spontaneously after twenty-four hours, not only from the urine of pregnant women, but also in equally great quantity from that of a virgin, ætat. 14, and that of a woman nursing for two months.

That in all the cases of pregnancy the urine was found to contain a small quantity of *albumen** in its uncoagulated state, although this was not observed in the urine of unimpregnated females contemporaneously examined.” 57.

TANGIBLE SIGNS OF PREGNANCY.

They are obtained by an examination, either per vaginam, or of the abdomen and its contents outwardly. The first of these methods, or, as the French designate it, “le toucher,” informs us of the condition of the mouth and neck of the womb, which, in pregnancy, undergoes very marked changes, and of the womb itself, in respect to its bulk, its weight, and also its contents, at least occasionally.

We have not space to allude more in detail to each of these particulars, and shall, therefore, merely mention those which are least understood, and which have not been sufficiently explained in some of the more recent manuals of midwifery. The late Dr. Gooch, always a respectable authority, used to insist much upon the importance of employing the vaginal and abdominal explorations at the same time; while the fingers of the right hand are applied upon the neck of the uterus, pressure is to be made upon the uterine tumor, above the pubes, in order to ascertain whether the moving of the tumor above will alter the situation of that felt in the vagina, and *vice versa*. We cannot, however, properly expect to discover the nature or contents of the tumor in this way; all that is announced to us is, simply, that there is an enlargement of some of the pelvic viscera, or that there is a morbid growth in the pelvis; thus, ovarian dropsy, extra-uterine conceptions, the presence of moles, hydatids, and so forth, in the womb itself, will give rise to this sign, and Dr. Gooch was incorrect in asserting, “that we are, by this means, *certain* that the tumor which we feel is an enlarged uterus.”

* Elem. Artis Obstet., p. 46-7.

* “It is scarcely necessary to state, that the solution of the bichloride of mercury affords by much the most delicate test for this, a few drops of it throwing down a white flaky precipitate.”

There is a method of performing "le toucher" which is much recommended by the French writers, and which, when applicable, for it is not in all cases, may assist us a good deal in determining the existence of at least "a something" in the cavity of the uterus. If the finger be pushed against the anterior part of the organ, between the os tinea and the pubis, with a sort of jerk upwards, we may sometimes so tilt the depending head of the child, as to make it rise up from the finger through the liquor amnii, when it again falls down, with a slight shock or impulse, on the finger. This passive motion of the fœtus, or, as the French term it, "abattement," is, indeed, a valuable sign, when it is distinctly felt; but all the periods of pregnancy do not admit of its application; if the child be too small, as before the fifth month, or too bulky, compared with the quantity of the fluid in which it floats, as after the seventh month, the sensation will, perhaps, not be felt at all; besides, it is possible that a pediculated polypus in the uterus, or a complication of ascites with the presence of some tumor in the pelvis, may give rise to it. As a matter of course, it does not indicate whether the child be dead or alive. So much for the vaginal examination; the abdominal is frequently still more important. Let the woman be laid on her back, with the head and shoulders elevated, and the limbs well drawn up, and then, after a deep and sudden expiration, as after coughing or sighing, the physician is often enabled to feel, not only the contour of the uterine tumor, but even the parts of the child, when the pregnancy is considerably advanced. Having done this, our next step is to discover, if possible, the motions of the child, by the hand applied to the abdomen, and pressing it suddenly, and with a degree of succession; this causes the child to start, as it were, and give a jerk or slight kick, which is readily recognized in many cases.

If, however, we fail in this way, the ready expedient of plunging the hand first in very cold water, and then suddenly laying it over the abdomen, will often at once detect the movements of the child; these movements, it will be understood, are muscular, and indicate the life of the being which impresses them; but there is another kind of movement, which is the effect merely of mechanical weight, and is produced by the body of the child rolling over from one side of the womb to the other: the mother is often sensible of this, upon any sudden change of position, especially if the child be dead; and when felt by the physician, upon pressing or tapping the ab-

dominal tumor first at one side, and then at the other, it is quite like that of a solid body, falling against the side of a membranous bag, containing a quantity of fluid, in which it is partially suspended. The French have given to this passive motion the appellation of "ballotement." Any movable tumor, as that from enlarged ovary, complicated with ascites, may give rise to an impulse against the hand of the explorer, which may be mistaken for the true "ballotement."

Before proceeding to detail the audible signs of pregnancy, it will be useful to mention a method of examination which was long ago recommended by Wrisberg, and which, although decidedly useful, has not met with the attention which it deserves. Our author has been much in the habit of employing it, and his experience warrants him to inculcate its utility on its professional brethren. By applying the cheek to the abdomen of a pregnant female, the motions of the child may sometimes be very distinctly perceived, which were extremely faint, or altogether imperceptible, to the hand.

"It is not easy (says Dr. Kennedy) to explain why we should arrive at more accurate conclusions in this way, than merely by the use of the hand; possibly, the weight of the head being irksome to the fœtus, induces it to struggle as it were to free itself from the pressure, by which means it imparts to us, as well through the sense of touch in so delicate a part as the cheek, as through the ear, its slightest motions, which might have escaped our observation on the application of the hand. However, the principal advantage we derive from this means of exploring seems to be, that, by allowing the head to rest for a sufficient length of time on the abdomen, the abdominal muscles are not, in the mere resting of the head on them, stimulated to contraction, as they are in a manual examination; on the contrary, they become fatigued, and being (as we may express it) taken off their guard, they relax and yield, allowing the head to sink more and more into the abdomen; until at length, when there is no gravid uterus in the way, we may often succeed in pressing the cheek upon the vertebral column, thus convincing ourselves of the absence of pregnancy, at least in an advanced stage." 64.

AUDIBLE SIGNS OF PREGNANCY.

The application of percussion to the elucidation of abdominal diseases, although as old as the days of Hippocrates, has been but very rarely re-

sorted to by the accoucheur, to assist him in his diagnosis of pregnancy. Its utility indeed, is and must be, from the nature of the varying surface on which it is made, always limited, and often completely nullified; but this is no reason that we should refuse to admit it among our means of diagnosis; knowing its uncertainty, we should rather strive to increase our knowledge of its powers. If we tap upon the hypogastrium of an unimpregnated, or recently-impregnated female, a tympanitic sound (provided the urinary bladder be empty,) like that which arises from tapping the blown-out cheek, is elicited; the reason of this is abundantly obvious—the intestines are in contact with the abdominal parietes, and the uterus is still imbedded within the pelvis. In proportion, however, as this organ rises up, and overtops the level of the pubis, the sound which is heard on percussion becomes dull and fleshy, similar to what is caused by striking the thigh with the fingers; the extent upwards over which this dull sound is heard, increasing as pregnancy advances, and the range of the tympanitic sound becomes more and more circumscribed, being confined chiefly to the lateral parts of the abdomen. In the latter months of gestation, the sound, immediately above the pubis, has a drier and harder character than it has hitherto exhibited; this arises from the percussion being applied upon the head of the foetus, which is usually situated downwards. The seat of this dry (sec) sound necessarily varies with the position of the head, and, as we can not unfrequently distinguish the head of the child by a manual examination through the abdominal integuments, we are thus enabled to corroborate the evidence we arrive at by percussion. Much dependence, as we have already stated, cannot be placed on these phenomena;—far otherwise it is with the other branch of auscultation, when rightly applied to the discovery of pregnancy, at least when it has advanced beyond the first two, or three months.

The author, to whom the merit is due of having first applied Laennec's immortal discovery, to the advancement of obstetrical science, is M. Major, of Geneva, who in the ninth volume of the *Bibliothèque Universelle*, announced, that the pulsations of the foetal heart might be heard, through the abdominal parietes of the mother, in the latter stages of pregnancy:—But with this simple fact did he rest satisfied, and prosecuted his researches no further. In 1822, Dr. Kergaradec published his "*Memoire sur l'Auscultation appliquée à l'étude de la Grossesse*," in

which, still ignorant of his predecessor's labors, he distinctly proved that not only might the action of the foetal heart be ascertained by means of the stethoscope at a period much earlier than M. Major had supposed, but also that a whizzing murmur, or souffle, (such as is observed in certain diseases of the heart, and large blood-vessels,) accompanying a simple pulsation, synchronous with the maternal pulse, was clearly perceptible at the same time. The cause of the latter sound, he believed to be the circulation of the blood through the placenta; and naturally concluded, that where the sound was heard, the placenta was attached to the womb. Now as this "*souffle placentaire*," or as Dr. Kergaradec calls it "*battement simple avec souffle*," may be heard for a considerable period anterior to the earliest recognition of the foetal pulsation, we shall examine it first. Upon applying the ear over the uterine tumor, either directly, or with the stethoscope interposed, we perceive a blowing, or hissing sound, well known to auscultators, by the name of the "*bruit de soufflet*;" sometimes it has more of a rasping, or sawing character; at other times it resembles the cooing of a dove, or the drone of a bagpipe; but these varieties are only occasional; by far the most common being the whizzing murmur. The extent over which it is perceptible is very different in different cases; it may be limited to one spot, which the end of the instrument covers; or it may be heard over the greater part of the uterine swelling; still, as a general rule, we should say that it is at the lower and lateral parts of the womb, where it is strongest and most readily discovered; and the placenta will be found attached to the spot, where the sound had been heard; at least this is true, in a vast majority of cases. Exceptions do occur, now and then, but they are rare, and the general position will be found in practice to be correct.

Dr. Kennedy informs us that at first he was of opinion that the seat of the souffle uniformly denoted, the adherence of the placenta; but that he is now satisfied that a similar sound may be occasionally heard over the lateral part of the uterus, although the placenta is not actually attached to this part. The explanation is given in the following words.

"In the neighborhood of the ligaments, at the lateral parts of the uterus, we shall also find a more full distribution of vessels, even when the placenta is not attached there, as the principal vessels which connect the uterus with the maternal system pass into it at those points." 69.

Whenever indeed the vessels of a part are in a state of very active and plethoric circulation, we shall discover a certain degree of the bruit de soufflet, upon an attentive auscultation:—it is the case in aneurism from anastomosis; and the very striking resemblance between certain parts of the impregnated uterus, and this morbid structure is well worthy of notice. If we make a section of the uterine walls, at the part where the placenta adheres, or from which it has been recently detached, we discover a congeries of large tortuous vessels, ramifying through its substance, and expanding into cells, or sinuses, which open upon the internal surface;—the rest of the organ exhibiting the usual fleshy-parenchymatous structure, with merely occasional vessels interspersed.

Authors have not, however, been agreed as to the true seat of the sound, under consideration; and not a few, even of the most recent and eminent explorers, suppose that it resides in the iliac arteries, where the enlarged uterus exercises a compression on their tubes; such is the opinion of M. Bouillaud, as explained by him in a late number of the *Journal Hebdomadaire*, and which our readers will find alluded to in our last number, page 519. Dr. Haus, of Wurzburg, advocates the same doctrine, and objects to the placental origin of the sound, because it is occasionally intermittent, and is often perceptible over the whole uterus.

“In answer to these arguments, it is merely necessary to state, that as to the intermission, the same objection would hold against the supposition that the *souffle* is produced in the aorta or iliac arteries. Again, how does he explain the fact of the sounds being heard in the part of the uterine tumor corresponding to where the placenta is attached, and ceasing when this system of vessels becomes impervious, or the uterus contracted? As to the fact of its being heard over the whole uterus, if this gentleman had sufficiently inquired into the matter, he would have found that it is rarely if ever perceptible over the whole of that organ, although it is often met with over a greater or less extent of its anterior wall; and in such cases he might have detected the placenta attached there; also, where the sound could not be detected, he might have found it attached posteriorly. Further, had he in such cases attended to the position of his patient, and examined minutely and carefully in the lumbar and iliac regions, he would have been less frequently disappointed in his attempts to detect

it than he appears by his own account to have been.” 73.

The theory of M. Bouillaud, whom we admit to be one of the most accomplished auscultators of the present day, is met by some powerful objections. If the sound be produced by the narrowing of the iliac arteries, in consequence of the pressure of the gravid uterus on the calibre of these vessels, why is the phenomenon not uniformly observed in the case of other pelvic tumors? and why should it cease, as we know that it does, when the foetus dies, although we had heard it most unequivocally, at an anterior period of pregnancy? Besides how will M. Bouillaud explain the fact, that the sound can be heard sometimes only over a very limited extent, and almost always either at that part where the placenta is attached, or at the side of the uterus, where the chief congeries of the hypogastric and spermatic vessels exists? “These facts,” says Dr. Kennedy, “have been repeatedly proved by manual examination, when it has become necessary to introduce the hand into the uterus to remove the placenta, as well as by ocular demonstration after death.”

It is scarcely necessary to allude to the hypotheses of those, who have strangely supposed that the placental bruit resides in some part of the foetal circulation, as the umbilical arteries; or in any of the venous trunks, whether of the mother, or of the child;—we need only remember that the accompanying pulsations are uniformly synchronous with the beats of the mother’s pulse,—a sufficient answer to the first of these theories, and that the stream of the blood in veins, is continuous, and not in jerks, or periodic impulses, as a refutation of the second.

We have next to inquire, what is the earliest period of pregnancy, in which it is possible to detect the placental murmur.

According to Dr. Kennedy’s experience, it cannot be heard before the end of the second, or beginning of the third month;—he has repeatedly succeeded in detecting it in the tenth, eleventh, and twelfth weeks.

It is important to attend to this, as we shall find hereafter, that the foetal pulsations cannot be ascertained, until the 17th or 20th week of pregnancy. The following cases are abundantly illustrative.

“August 15, 1829. A woman named Deveaux, who had been under my care in labor eighteen months before, called to consult me for a slight attack of pneumonia. She mentioned that her menses had not appeared for the last two

months: I therefore examined her with the stethoscope, and detected clearly the placental *souffle*, although no uterine tumor was observable. Dr. Collins, who also examined her, expressed his astonishment at its distinctness at that early period. I gave this woman reason to suppose it possible that she was pregnant, of which she had not the slightest anticipation. However, the accuracy of the diagnosis was attested by her coming into hospital on the 7th March, 1830, in labor, and being delivered of a living child the day following, exactly twenty-nine weeks from the period at which we had examined her." 82.

Case 2. "Dr. Mollan desired my attendance to examine a patient of his laboring under insanity. She was married, and had been living with her husband about three months before our seeing her, since when, no menstrual discharge had been observed. No further evidence of pregnancy could be arrived at, and the patient was so unmanageable, as to prevent our ascertaining any thing by a vaginal examination; with much difficulty she was kept quiet long enough, to allow the stethoscope to be applied. When the *souffle* was distinguished in the uterine region, but no tumor could be detected, we explained, that it was impossible to give a decided opinion upon this single symptom; but that the impression on our minds was, that she was pregnant at a very early stage; Dr. M. regulated his treatment accordingly, and I three months afterwards learned from him, that there was no doubt of the pregnancy, as he and Dr. Hanna then distinctly detected the foetal heart and the motions of the child." 83.

Case 3. "I was sent for one morning by a lady, who came over clandestinely from the sister kingdom. The statement she gave me was as follows. She had for some months been in the habit of receiving the attention of a gentleman to whom she had formed an attachment; but unfortunately fell a victim to her father's caprice, who, after countenancing this attachment, suddenly withdrew his consent to their union, and insisted on her marrying an individual of his own selection. Ten weeks had elapsed from the time of her first giving way to illicit intercourse, when she consulted me; during which two monthly periods had passed without the usual menstrual discharge: and ten days before my seeing her, in consequence of some active exertion, a discharge of blood took place from the vagina, which lasted for a few days. Her father urged her compliance with his wishes; and she, dreading to enter the marriage state whilst there

was a possibility of her being pregnant, consulted a medical man of eminence, who, after the usual investigation, pronounced that such was not the case. Impressed, however, with a painful foreboding of the true nature of her state, although she had no further symptoms of pregnancy than that already mentioned, she determined on obtaining further advice; and, under a pretence of visiting a friend in the country, came over to Dublin. On the most accurate examination, I could ascertain no further grounds for suspicion than the presence of a remarkably distinct *souffle*, which was discoverable on pressing the end of the instrument in the pubic region over the uterus. Relying on this, I gave her to suppose that there was a strong likelihood of her being pregnant, although I could not actually pronounce such to be the case. The result fully justified the confidence reposed in this, as a means of diagnosis, for, exactly nine months from the period when she calculated, she gave birth to a child." 81.

Few readers will be bold enough to impeach the authenticity of these cases, or the strict veracity with which they are reported; and yet, strange to say, not only most practitioners, but even many authors, of the present day presume to treat auscultation with neglect. If they will not use their ears, and satisfy themselves of its truth, they must blame their own wilful and obstinate ignorance if they are frequently perplexed in numerous cases, where they, as well as their patients, are most anxious to obtain a correct diagnosis: we tell them that, if they will but take the trouble patiently, attentively, and repeatedly to listen, either with the naked ear or with the stethoscope, over the hypogastrium of a woman who is with child, they will hear the sound which we have endeavored to explain in the preceding pages, and the ascertaining of which was of such great importance in the cases we have detailed. True it is that auscultation, like every other new object of knowledge, requires a certain portion of time and of trouble to be able rightly to appreciate its value; and equally true is it, that the student may encounter perplexing difficulties and discouragements in his first essays to acquire the quickness of ear which is necessary to detect its indications. He may mistake other sounds for the one he is in search of, or he may hear the true placental murmur one day, and not hear it on another; or, lastly, he may completely fail in detecting it at any time, although all the other symptoms of pregnancy be present. A few explanatory re-

marks may, therefore, be useful. With regard to the sounds which simulate the placental souffle, they are derived either from the chest, or from the abdominal viscera, or from the aorta, and other large vessels. The common respiratory murmur is sometimes so propagated along the abdominal parietes, that it may be heard by the ear applied over the pubis; equally so is it with the sonorous and other râles; but, independently of the very dissimilar character of these sounds, they are simultaneous with the breathing, and have no synchronous action with the pulse at the wrist, a coincidence which necessarily accompanies the true placental souffle; did we require any other disproof, we have only to examine the abdomen higher up, and the sound will be found to be more and more distinct as we approach the chest. By attending to these particulars, we may also easily distinguish any intestinal rumbling, produced by the passage of air from one portion into another; the noise heard varies in its seat, its intensity, and character, and there is no harmony between its repetitions and those of the pulse. The third set of simulating sounds is much more difficult of accurate discrimination, namely, those which have their seat in some of the large arterial trunks of the abdomen or pelvis; they closely resemble, nay, sometimes are identically the same as, the true placental murmur, and depending, as they do, upon the same current of blood, they are necessarily synchronous with each other, and with the pulsations of the heart.

"Fortunately, (says Dr. Kennedy,) such cases are rare, and although we have frequently intentionally produced *bruit de soufflet*, by pressing the end of the instrument on the aorta or iliac arteries, yet, amongst the number of patients examined whilst attending to this subject, we have met with but one case likely to be confounded with pregnancy; where a sound resembling the placental souffle, from a morbid cause, was observable. The case alluded to was one of considerably enlarged liver, the pressure from which appeared to have this effect; but here the sound was confined to a small spot immediately over the aorta. We shall be enabled to distinguish *bruit de soufflet*, where it so occurs, or arises either from aneurism, hemorrhage, hysteria, or nervous states of the system, by its concomitant symptoms; and in the latter cases, to use the words of Laennec, 'when the bellows sound exists in the aorta, particularly the ventral portion of it, there is always a marked state of disorder in the nervous system, viz., agitation and anxie-

ty, faintings more or less complete, and produced by the slightest causes, and an habitually quick pulse.' " 77.

The limited extent over which the *bruit de soufflet* can be heard, and the variableness and irregularity of its strength at different periods, appear to be the chief, although, we admit, not always quite satisfactory diagnostic marks. If, indeed, the compressing cause be a moveable tumor, or an accumulation of hardened feces in the colon, or the stethoscope itself (for it must always be remembered that a certain degree of this bruit may at any time be produced, by leaning the instrument too forcibly over the canal of a considerable arterial trunk,) then we may find it cease altogether when such pressure is removed, as by raising the tumor with the hand, or by altering the position of the patient, by clearing the intestinal passages, or by a lighter and more adroit application of the instrument.

But, although we have completely satisfied ourselves that it was the placental, and no other sound, which was perceptible upon our first examination, it may possibly occur that we may be foiled to hear it at another time. It seems, therefore, that it is sometimes intermittent; and this phenomenon has been so puzzling to explain, that it has led Dr. Haus and other observers to suppose, that it cannot possibly reside in any of the uterine vessels, which, to our knowledge, are not subjected to any periodic changes. It must be frankly acknowledged that, hitherto, no satisfactory solution of this difficulty has been given. Dr. Kergaradec supposed that the intermissions were attributable to changes of position assumed by the fœtus. This may possibly be the case, but the idea, as yet, can be received only as conjectural.

"In such cases, the cessation of the sound is not permanent; therefore, by repeating our examination, we shall succeed at another time in discovering it. Uterine contraction suspends it, in most cases completely, whilst this organ is in action; in some, it converts it, during the pain, into an abrupt sound or pulsation; the former are the cases in which we have most frequently observed this omission to occur." 79.

But now and then examples occur in practice, where not even frequently-repeated auscultation of the abdomen can detect the placental souffle; perhaps, as yet, we are ignorant of several of the conditions in which it is wanting; but there is one, hitherto little noticed by authors, well

* Laennec, by Forbes, 2d ed., p. 698.

worthy of our attention—we mean, when the placenta is attached to the posterior wall of the uterus, and the sound of its circulation is so muffled and obscured by the intervening contents, that it scarce can be recognized by the ear, applied over any part of the hypogastrium. Whenever this state of things is suspected, let the stethoscope be placed over the sacral and lumbar regions, close to the ilium, and we shall sometimes succeed in hearing the expected sound.

Having thus sufficiently explained the earliest auscultatory sign of pregnancy, we proceed now to the examination of the second, which is yet more easy of detection, and more decisive and important as a means of information. The double pulsatory sound of the fœtal heart, if once heard, cannot possibly be confounded with any other, except in those cases where the maternal circulation is very much quickened; and even then, there is a want of synchronous harmony between them. The fœtal pulse generally beats about 130 or 140 beats in the minute; but, like that of an independently-existing animal, it is liable to very considerable vicissitudes in point of frequency.

It is decidedly affected by the motions of the fœtus itself, being usually accelerated after such—by any action of the uterus, especially on the approach of and during labor—by hæmorrhage, venesection, or any sudden mental emotion affecting the mother.

Case 1. A woman was seized with labor-pains, while suffering from a severe attack of croup. The febrile excitement ran high, and the pulse was 140. The stethoscope, applied midway between the umbilicus and the right anterior spine of the ilium, detected the beatings of the fœtal heart, which were weak, indistinct, and much quickened, being 190 or 200 in the minute. A feeble, delicate child of the 8th month was born, and its pulse then amounted to 180.

Case 2. Another patient was seized with violent pleuritis during labor. Her pulse was 140. The fœtal pulse could be heard over a considerable portion of the abdomen, extending across the whole hypogastric region, into the inferior part of the umbilical and lumbar regions; the number of beats was 180 in the minute. The placental souffle was audible only over a small spot in the left groin; it corresponded in frequency with the maternal pulse.

[TO BE CONTINUED.]

FRACTURES OF THE LOWER JAW.—Most of the cases of this injury have been treated without

the application of any splints, or surgical bandages; the simple expedient of supporting the jaw, with a common handkerchief folded and applied under the chin, carried upwards, and tied on the top of the head, has been found quite sufficient.

A COMMUNICATION ON SCARLET FEVER.

By H. HUNTT, M. D.

IN eruptive diseases generally, it is always improper to commence the treatment by *active depletion*. When the constitution is exerting itself to throw out the eruption on the surface of the body, if the powers of life are checked, and nature is crippled, (by active depletion,) in her efforts to get rid of this poison, the eruptive process will be incomplete, and the force of the disease will fall on the internal organs, and the life of the patient will thereby be exposed to great danger. Therefore, avoid *purging* or *bleeding* in the commencement of scarlet fever. Give spt. nitre dulc., and antimonial wine, in repeated doses, so as to excite slight nausea; if purging should be induced, give a few drops of laudanum or paregoric, to counteract the effect of the mixture. Give, also, pepper tea, which is made by taking red pepper, a tea-spoonful; common salt, a tea-spoonful; vinegar, a table-spoonful, put in a common tea cup, and fill up with boiling water. Dose, for a child two years old, a tea-spoonful, which may be taken three or four times a day: this dose may be graduated agreeably to the age of the patient. The *pepper tea* has not only the effect of guarding the fauces against high inflammation, and its consequences, but it has a most happy influence in determining the eruption to the surface. Drink warm sage, balm, or tansey tea. If the bowels should be constipated, give occasionally a mild injection. When the eruption is slow in making its appearance, use for a few moments a *hot salt bath*. If there should be swelling of the glands of the throat, apply plasters of garlic or onions. After the eruption has been fully out, during the space of three or four days, give a saline purgative every morning, for three or four mornings successively. Under this mode of treatment the patients convalesce rapidly, without any of the ill consequences of this disease.

I have used this practice for more than twelve years, and am not aware of having lost a single patient during that time, when the remedies were rigidly pursued from the commencement of the disease.

WASHINGTON, May, 1834.

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,

EDITED
BY GRANVILLE SHARP PATTISON, M.D.,
Prof. of Anat. in Jefferson Med. Col., Philada.

PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JUNE 18, 1834.

No. 28.

[From Cyclopæd. of Prac. Med., p. 45.]

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION.

By EVORY KENNEDY, M. D. Dublin, pp. 288.

II. SIGNS OF PREGNANCY AND DELIVERY.

By W. F. MONTGOMERY.

(Continued from p. 232.)

THE patient was largely bled; her pulse rose to 150, and then to 170, and the fœtal pulse fell first to 150, and then to 90. Keeping the ear applied for some minutes to the stethoscope, while the patient was very low, although there was not complete syncope, Dr. Kennedy found that the action of the fœtal heart varied considerably in frequency, being one minute 92, next rising to 100, and then to 128, and that it ranged between the two extremes, until the mother had recovered from the effects of the bleeding; then her pulse fell to 130, and that of the fœtus rose to 135. It now continued between this and 100, the frequency varying every two or three minutes for half an hour, and at last it ceased altogether. The woman was delivered in the evening of a child, which had all the appearances of having recently died.

Case 3. A woman was admitted into the Dublin Lying-in Hospital, with uterine hæmorrhage. The placenta was found to be separated from the posterior part of the cervix uteri. She had felt the motion of the child a few minutes before the examination. The placental sound was heard at the left side, stretching into the iliac region, about 100 in the minute; the fœtal pulsations in the neighborhood of the umbilicus—they were feeble, and 108 in number. The hæmorrhage continuing, the mother's pulse rose to 110; that of the fœtus fell to 88.

"Just at this moment the child was felt moving violently, or rather convulsively, both by the patient and myself. These motions were repeated four or five times in the course of a few minutes, and then ceased altogether, after which the fœtal pulsation could not, upon the closest examination, be detected. The placental sound still continued audible, but became altered and abrupt in the character. The evident inference in this case was, that the child had died from the effects of the hemorrhage, and that the change in the pulse, and convulsive motions observed, were the forerunners of its dissolution. I mentioned this to the pupils who were present with me whilst making the examination, at the same time expressing my conviction that the child would be born dead. In about three hours afterwards, the patient was delivered of a large female child, dead, but exhibiting every appearance of recent vitality, and of having lately been in the perfect discharge of its functions. It was examined six hours afterwards, when the heart and great vessels were found loaded with dark blood, and the sinuses and vessels of the brain similarly circumstanced." 96.

These cases clearly show the decided influence, which disorders of the mother's system exercise upon the fœtal circulation in respect of its frequency and strength.

The extent over which it may be heard is equally subject to differences; in the majority of cases, it is to be met with over a surface of three, or four inches square, in the hypogastric region, and generally it is more clear and distinct on one side, than on the other; sometimes indeed in the course of the linea alba; and sometimes on both

sides, as well as there. In advanced pregnancy, its most usual site, is midway between the umbilicus, and one of the anterior spines of the ileum; even in the earlier periods, this is sometimes the spot, where it can be most easily ascertained. We must therefore carefully explore the whole surface of the uterine tumor, before we pronounce the sound to be inaudible. No doubt these differences in the situation of the sound, depend upon the varying positions of the fœtus. Whenever there is a large quantity of liquor amnii, the sound of the heart is less obvious; perhaps this is one of the reasons, that it is so much less distinct in early, than in more advanced pregnancy:—no doubt, also the feebleness of the little organ contributes to the same effect. It is rare that the fœtal pulse can be detected before the expiration of the fourth month, and until after quickening has taken place; the uterus then rises higher, out of the pelvis, the fœtus becomes more active, and is situated closer to the abdominal parietes than hitherto. At this period, it is always weak and indistinct, and although heard to-day, may not be audible to-morrow; even the lapse of a few minutes will cause the disappearance of all sound, and then it will return; the greatest nicety of ear, as well as patience in renewing the examination, are requisite, in all stethoscopic inquiries, to discover the early fœtal pulse. Dr. Kennedy has met with cases where he has been quite puzzled to hear it, at a first examination, in the fifth month, although the placentary murmur was very distinct; and yet a few days subsequently he detected it at once, in the very same spot which he had before examined without success. In proportion as pregnancy advances, the sound of the fœtal heart becomes more and more distinct, and less subject to intermittent irregularities; the liquor amnii is now considerably reduced in quantity; the child no longer floats about in the water, but remains more steadily in contact with the walls of the uterus. Not only does the sound become more forcible, but the extent over which it may be heard is much increased, so that, towards the full period of gestation, it may be perceived over the greater part of the uterine swelling, and more especially in the lower part of it, between the pubis, and an inch below the umbilicus.

Such, therefore, are the two auscultatory signs of pregnancy—the placentary bruit and the fœtal pulsation; when the former only can be discovered, there may be room for some hesitation in pronouncing upon the nature of the case—where

both, or even the latter by itself, is clearly and satisfactorily made out, no rational mind can hesitate a moment. We know that some very recent authors have hazarded an opinion unfavorable to the use of auscultation in such cases; but we are inclined to impugn rather the accuracy of their ears, than the sincerity of their hearts or the sagacity of their heads.

To adduce arguments from mere reasoning, on a subject cognizable by the senses alone, is utterly ridiculous, unless we are to become disciples of the Berkeley school, and boldly deny the existence of all matter, and, therefore, despise all methods of appreciating its qualities. The limited opportunities of some practitioners may, indeed be unfavorable to their ever acquiring that adroitness of examination, and that delicacy of hearing, which are necessary to make a good obstetrical stethoscopist; but surely a public teacher, and a physician of any midwifery institution, ought henceforth to hesitate, before they decide upon the merits of a question which appeals to one of our outward senses as its only fit tribunal. Far better will it be, alike for their candor and their professional character, at once to avow either the cloudy dulness of their perceptions, or the wilful obstinacy of their prejudices.

We consider it to be a duty to ourselves, who were among the first to introduce the knowledge of auscultation to the British public, and have continued to be its firm advocates up to the present hour, as well as to all our readers, especially such as are abroad, and whose opportunities of consulting the mass of modern works are necessarily limited, to seize every occasion of inculcating the importance of employing auscultation, in all cases where it is applicable. Hitherto, its domains have been chiefly the chest, and the courses of the larger arteries; but, like every other discovery based in truth and nature, the extent of its value can never be duly appreciated at first; its progress increases with our inquiries, and one of its very noblest claims to our favor, and one of its proudest triumphs, is the light which it has so unexpectedly shed upon obstetrical science.

Will any one presume to gainsay its importance in the following cases?

“I was requested by Dr. Mollan to examine with him a lunatic patient under his care. She was a married woman. For some months before our seeing her, her menses had not appeared. This circumstance excited a suspicion that she might be pregnant; a fact which it was of im-

portance to ascertain, as well with a view to treatment, as to the obvious precautions necessary to have recourse to under such circumstances. She was so perfectly deranged in intellect, that the usual means of arriving at information, through the individual's own statements, were quite unavailable; and so uncontrollable was she, that a vaginal examination was out of the question. The stethoscope was applied, and in an instant the question was decided, as a foetal heart's action was distinctly perceptible, both to Dr. Mollan and myself. The motions of the foetus were also distinguishable in the same way. This woman was some months afterwards delivered of a full-grown child. Had the medical attendant in this or similar cases, from ignorance of the existence of pregnancy, had recourse to treatment calculated to restore the menstrual secretion, what might not have been the result? and yet it is the course that would in all likelihood have been adopted by an incautious practitioner."

Case 2. "Mrs. W., mother of two living children, in the third month of her late pregnancy, had considerable hemorrhagic discharge per vaginam, attended with severe pain in the back. These symptoms ceased in a few days, by the observance of strict quiet, joined with the use of the ordinary remedies. She was similarly affected, at intervals of about four weeks, for three successive periods. Between the second and third of these periods, she said she began to feel the motion of the child. After the fourth return, though she declared her unabated confidence in the accuracy of her sensation, as to the movement of the child, I thought it advisable to institute a more strict investigation. On an examination per vaginam, the cervix uteri was not so altered as to remove my doubts, and the 'ballottement' of the French writers never afforded me such undoubted evidence of pregnancy, as a reader of their works might be led to expect. I carefully applied the stethoscope, and distinctly heard the pulsations of the foetal heart, which fully satisfied me as to my patient's state. She carried the child until about the seventh month, when labor came on, and an infant but very recently dead was born. The recovery was tolerably favorable." 105.

Dr. Byrne has communicated the details of a very interesting case, which had been pronounced by the medical attendant to be one of a cancerous tumor growing from the fundus of the uterus, and involving the Fallopian tubes and ovaries. The treatment usual in cancerous dis-

eases had been employed with no effect. The patient was a pale delicate woman, 34 years of age, and mother of three children, but had not been pregnant for three years, during which time the catamenia had been extremely irregular. She had been much distressed by the growth of a tumor, which seemed to rise from the pelvis, as she was quite uncertain whether she was in the family-way or not. The general symptoms were occasional sickness, pains about the loins, loss of appetite, and absence of menstruation for five or six months. Upon consulting her accoucheur, she was informed of the dismal malady with which she was afflicted. Dr. Byrne, upon applying the stethoscope immediately below the umbilicus, heard a masked murmur, very different from the borborygmus of the intestines; and changing the instrument a little to the right side, he distinctly recognised the placental souffle; on the left side he could hear the foetal pulsations, which were 140, while those of the mother were only 90. Two months after this examination this patient was delivered of a healthy child.

But if the preceding case offered any rational grounds of embarrassment, how much more annoying and distressing were they in the following one, where even an experienced and skilful accoucheur was quite doubtful whether the woman was pregnant or not? The abdomen was enormously distended with water, and there was general oedema; the dropsical symptoms had existed for a year and a half, during which time the catamenia were very irregular, being sometimes absent for several months, and then returning. When Dr. Kennedy visited her, they had not been observed for six months previous; if pregnant, she had not quickened as at former times; only of late, she thought that she occasionally felt an indistinct motion. No satisfactory information could be obtained by examining either the abdomen outwardly, or the uterus per vaginam, in consequence of the extremely swollen state of every part; but the ear at once discovered the placental souffle on the right side; the foetal pulsation, although it could not then, was afterwards discovered remarkably small and obscure, but at times it could not be heard at all, whereas the placental sound was uniformly and easily audible. As the woman was in a state of extreme debility, and suffering from dreadful dyspnoea, it was deemed advisable to induce premature labor. In twelve hours she was delivered of a seven months' child, which lived for 48 hours. The stethoscopic diagnosis in this case was especially valuable, as it had been proposed

to perform paracentesis abdominis to relieve the ascitic accumulation. It is quite unnecessary to enlarge the number of illustrative cases; for what medical man, even of a few years' standing, and of limited experience, could not adduce some from the field of his own observation, to prove the extreme difficulty of determining the existence of pregnancy, even within a month or a week of delivery? patients have been physicked without mercy, deluged with draughts and potions, bored through with trocars, and tortured with dismal forebodings, when the small still voice of the stethoscope might have solved every difficulty, and saved the poor sufferer from all her distress; but even supposing that things do not proceed quite so far as this, who does not know the ridiculous and ludicrous exhibitions which sage ladies and grave doctors have in sooth exhibited and do often exhibit? at one time the lady vowing that she ought to be, and that she must be in the condition that dear wives wish to be, when they love their lords, and the poor doctor nonplused himself, not knowing what to think, or how to act, whether to believe her who should know, and kindly to flatter the hopes of the anxious would-be father, or to join in the titter and waggish smile of friends and acquaintances, who regularly send their compliments to inquire how Mrs. ——— is, and to know when the doctor expects her to be well. Now there can be little doubt, that the awkward ignorance of a medical man in such a case is but too well calculated to expose the profession to the laughter and comic satire of the world; and we need not be told that unless he acquires and retains the ascendant of a respectful authority, derived from superior knowledge over his patients, never can we hope to see medicine regarded as a justly-noble and useful science, and its votaries treated with honor and submission.

No department of the healing art requires more skill, more caution, more of the gentlemanly character, more of sound information on all subjects, than the properly educated accoucheur of the present day; cases of the most perplexing difficulty, involving character, fortune, nay, life itself; and of the most frightful danger and responsibility, are frequently intrusted to his charge; his opinion will, and ought to outweigh the opinion or wish of all others; and his conduct may either save or destroy. Let him not therefore neglect any means of adding to his knowledge, and of supplying him with useful and available information; among such means none promises more important results than the use of the ste-

thoscope. When all the ordinary signs of pregnancy are absent, or so muffled and obscured as to afford scope only for conjecture, if the foetal pulse can be heard but once unequivocally, the nature of the case is obvious, beyond cavil; the auscultator need not heed all the doubts and discordant opinions of others, for what more can he desire, than to have held converse, as it were, with the very being whose existence is disputed?

There are, however, it must be admitted, sometimes difficulties to be encountered in the path of our research; and just as we have seen above, that the sound of the placental souffle may be confounded with other sounds by the inexperienced observer, so may the sound of the foetal pulse; the action of the maternal heart, aorta, or iliac arteries, when very rapid, may be mistaken for it; a little attention will, however, in most cases, serve to discriminate between them; the simple expedient of invariably comparing the beats of the sound we hear with those of the mother's pulse, will generally suffice; if they do not correspond in frequency, we may be quite satisfied that the sound does not proceed from any part of the maternal circulation, but very strict accuracy here may be rather difficult to obtain, when either the mother's pulse is much quickened, or that of the foetus is much retarded; in such circumstances we shall be assisted in our diagnosis, by remembering that the pulsation of the aorta, or of the iliac arteries has not the double sound of the heart's action, viz., that which accompanies the auricular, and that which accompanies the ventricular contraction; and moreover, that at each stroke, a thump, or impulse is communicated to the ear, sufficient sometimes to raise it from the instrument, a phenomenon which never accompanies the foetal pulsation. When the vessel becomes aneurismatic, the throb may be so remarkable as to be felt or even heard by the patient herself. If again the simulating sounds proceeds from the heart of the mother, they indeed have the double character of the foetal pulse; we are therefore deprived of this diagnostic mark; but there is another easily available, and sufficiently decisive; in the one case, the sounds became louder and louder, and the impulse more forcible, as we approach the ear to the cardiac region; in the other, they become more and more obscure, and the impulse is altogether wanting. We select one case to illustrate these particulars.

"Mary ——— came into the Lying-in Hospital in labor. I saw her in company with Dr. Darley; the os uteri was slightly dilated, and

the membranes unruptured ; she was only in her seventh month of pregnancy. On applying the stethoscope, the true foetal circulation was nowhere observed, although there were some circumstances which, with a person not paying attention to the distinctions heretofore insisted upon, might have led to error. The placental sound was heard in this patient to the left side, about three inches from the ramus of the pubis ; but it partook more of the character of a pulsation than of the usual *souffle*. On applying the stethoscope to the superior part of the uterine tumor, a distinct double pulsation was observable, beating one hundred and twenty in the minute ; however, on feeling the patient's pulse at the wrist, it was found one hundred and twenty also, and synchronous with the pulsation in the uterine tumor. On examining the latter a little more closely, it was found to be the extension of the maternal heart's action, conveyed along the integuments by continuity of surface, and was to be traced distinctly from between the fifth and seventh ribs on the left side, extending on the abdomen, and becoming less distinct in proportion to its distance from the region of the heart, until it was lost altogether just above the umbilicus. The above patient was delivered in a few hours after examining her ; the child was dead ; and exhibited what are ordinarily termed marks of putrescency." 117.

Such are the chief sources of fallacy, which the action of the maternal circulation may give rise to ; and which may thus embarrass the inattentive auscultator ;—a diligent caution may easily avoid them. An occasional cause of error is even the sound produced by the contraction of the abdominal muscles, or of the uterus ;—it can however be only the totally unpractised ear which is misled in this way.

Supposing therefore that we have satisfied ourselves that the sound heard is that of the foetal pulse, it may be asked, if it can proceed from no other part, except from the heart itself ; Dr. Kennedy answers the question in the affirmative ; he states that in some cases the umbilical cord, when placed between the body of the child and the walls of the uterus, may be felt through the thin abdominal parietes, distinctly rolling under the finger, and that if the stethoscope be applied over the place, its pulsations may be detected at once, corresponding in frequency with those of the foetal heart, and therefore not synchronous, with the mother's pulse ;—as a matter of course, this sign is equally decisive of the presence of a living child in utero,

as the sounds of the foetal heart ; it has not the double beat of the latter, and it may be rendered less forcible and distinct, by a gradual pressure of the end of the stethoscope over the part ; by this manœuvre, a *souffle* may often be caused, just in the same way, as a *souffle* may be heard in any large arterial trunk, as the brachial or femoral for example, by resting the stethoscope firmly upon it.

These remarks are well illustrated by the following case.

"Visited Mrs. ——— in an advanced stage of pregnancy ; on applying the hand to the abdomen, the integuments were found to be remarkably thin, and the limbs were distinctly to be felt through them. Midway between the navel and pubis, the funis could easily be distinguished, prominent, rolling under the finger, and pulsating ; it appeared to be kept in contact with the inner surface of the uterus by being suspended over a limb of the child, and thus pressed between it and the uterus. The pulsation, on the stethoscope's being applied, amounted to one hundred and forty in the minute, corresponding in frequency with the foetal heart, which was distinctly perceptible in the left iliac region over the ramus of the pubis, and also on the right side, but less distinct. The placental *souffle* was perceptible at the right side, stretching from the neck up towards the fundus of the uterus, emitting eighty sounds in the minute, which corresponded with the maternal pulse at the wrist. What was particularly worthy of attention, however, in this case was the remarkably superficial position of the funis, which rendered its detection by the stethoscope a matter of great facility, and even enabled it to produce a pulsation, which, on careful examination, was perceptible to the touch. Having fixed the funis against the limb of the child, between the finger and thumb of the left hand, I made a gentle pressure with the fore-finger of the right hand on the cord, keeping my ear applied to the stethoscope, the other end of which was fixed over the funis, at a point nearer its insertion into the placenta. The pulsation, which up to the moment of my making this pressure was remarkably strong and distinct, became converted into a *souffle*, and on increasing the pressure it immediately ceased, recommencing the moment I discontinued it. I then removed the stethoscope to the spot where I had discovered the heart's pulsation, and repeated the experiment as above. The action of the heart at first became labored, but fuller ; afterwards it became fluttering and indistinct ; and

not judging it safe to continue the pressure any longer, lest the child should suffer, I removed it, when the action became regular as before, but somewhat quicker. I had previously placed the stethoscope over the part where the placental *souffle* was observed, but without perceiving any change when pressure was made on the funis as above." 127.

COMPOUND PREGNANCY.

When two children are present in the womb, they are generally so situated that the head of one is towards the cervix, and the head of the other is at the fundus; consequently the exact position of the pulsating points is not the same; and an expert auscultator may hence form a very probable conjecture of the existence of a double pregnancy; in a few cases Dr. Kennedy has been led to this conclusion, and the accuracy of his opinion was confirmed, by the delivery of twins.* It requires however much adroitness in the use of the instrument, and a long practised ear, to be able to pronounce, with any degree of tolerable accuracy, upon this subject; fortunately no very direct advantages are dependant upon, or to be derived from this prophetic knowledge; and even where a physician had reason to suspect the existence of twins, he should carefully abstain from any allusion respecting it to his patient.

In some of the lower animals, as the cat, and bitch, it is often quite easy to determine the number of kittens, and pups they are pregnant with; this arises from the circumstance of the fœtuses being more apart and distinct from each other; our author has never heard the placental *souffle*, in any, except in the cow. While we admit that in the generality of cases of double pregnancy, it is an object of little moment to know beforehand their true nature, circumstances may occasionally occur, where such knowledge may be of much practical value; suppose that one child has come away, and we are in doubt, whether a second remains in the uterus: instances are on record where the second delivery did not take place for several days, weeks, and even months, after the first; in the case related by Dr. Maton, in the 4th volume of the Medical Transactions, three months elapsed be-

tween the births; both children being born alive, and living for some days.

Dr. Ryan informs us of a woman who traveled thirty miles after her delivery; she complained much of swelling of the abdomen; and upon examination, another child was found in utero. Sometimes, although rarely, an abortion of one of the twins takes place, and the other remains behind for four or five months, till it attains its perfect growth, and is born at the full period; now in all such cases, we may arrive at far more decisive certainty of information by means of auscultation, provided the retained child be alive, and sufficiently developed, than by any other method hitherto followed.

COMPLICATED PREGNANCY.

This term is employed by the French authors to designate the co-existence of disease, either in the uterus itself, or in some of the adjacent structures, with pregnancy; thereby rendering the discovery of the latter state obscure, and often most perplexingly uncertain. The most experienced accoucheurs have been embarrassed; what between the reports and assurances of the patient, the enormous distention of the abdominal parietes, thus precluding any satisfactory examination, and the variable character of the symptoms, which one day simulate those of gravidity, and on another day are all referable to an accumulation of wind or of water, it may be next to an impossibility, accurately to pronounce upon the true nature of the case. Suppose, for example, that there is an inordinate quantity of the liquor amnii, so distending the uterus, that it occupies almost the whole abdomen, or that the uterus is filled with air, or that a dropsical effusion has taken place into the bag of the peritoneum, or that the intestines become blown out with air, or that this air is collected exterior to them, constituting the disease of "tympanitis abdominalis," or lastly that along with pregnancy, there is diseased enlargement of one of the ovaries, a complication indeed rare, but occasional, it may defy the nicest tact of the fingers, and the shrewdest sagacity of multiplied experience, to say positively whether our patient be in the family-way, or not. If tympanitic inflation be the cause of the perplexity, we may indeed observe that the size of the abdomen varies much at different times, that it is more equally diffused, and often more conspicuous in the epigastrie and umbilical regions, than over the site of the uterus, that the belly on percussion gives out a sonorous drumlike sound, and if examined with the ear, a loud intestinal rumbling, or bor-

* A most interesting physiological fact has been ascertained in these researches; viz., that the pulsation of the two fœtal hearts, is by no means synchronous; in one case, on the left side, the heart was heard to beat 130 times in the minute, while the other heart on the right side beat 145 times.

borygmus may be heard. In such case, we shall do well to premise a dose, or two, of a warm purgative, and none, according to our author's experience, is so efficacious, as a mixture of castor oil and spirit of turpentine; after a free evacuation of the bowels, the stethoscope may now discover with facility the placental souffle, or fœtal pulse.

When pregnancy is complicated with ascites, the treatment is much more difficult and precarious; but all will depend upon the accuracy of the diagnosis we have formed. In the name of humanity, let no more murders from ignorance be committed. We have already alluded to one case, where a practitioner was about to perform paracentesis abdominis, while ignorant of the co-existence of pregnancy. Sir A. Cooper has reported a similar case; and Dr. Lowder mentions one, in which the trocar was actually plunged through the distended urinary bladder, and uterine parietes, into the head of the child!* But even when cutting and boring instruments are not employed, much and lasting injury may be committed by the exhibition of drastic purging and diuretic medicines during the state of gestation; whereas if the physician were assured of the existence of this, his practice would be more rational, and far more successful; by gentle remedies he would endeavor to evacuate the water, or at least to prevent it from increasing; and were paracentesis indispensably necessary, the operation might be done, not only with perfect safety, but with success. Our limited space forbids us from expatiating at a greater length upon this part of our subject, and from alluding here to some other complications of disease, which may exist simultaneously with pregnancy, and mask or conceal all the ordinary symptoms, which indicate such a state. This we regret the less, as we shall be led to the consideration of some of these in the following section, which treats of—

PSEUDO-PREGNANCY, THE "GROSSESSE APPARENTE, OU FAUSSE" OF THE FRENCH AUTHORS.

Under these terms are comprehended all cases of actual deception and of wilful simulation, or pretence, as to the existence of pregnancy, when that state does not exist. It will be useful to

consider this question in a threefold point of view, according as there may be, either some physical and appreciable phenomena, in the body of the female, calculated to mislead her, as well as her attendants; or on the other hand, mere longing whims, and foolish fancies, which like the delusions of insanity take and keep possession of the mind of the invalid, in spite of all reason,—or lastly an intentional forgery of some of the symptoms, for the purpose of imposing upon credulity, or of evading the retribution of avenging justice.

In the first class we may enumerate ascites, tympanites, ovarial enlargements, moles and other growths within the womb, amenorrhœa, and hysteria, &c. The morbid developments of the ovaries are among the most frequent and perplexing of these simulating diseases; there is such an intimate sympathy of action and of organic, or vegetable sensibility between these organs and the womb, and between this centre of the female generative system, and the rest of the animal frame, especially the mammæ and stomach, that affections of the one often induce, and still more often imitate those of the other.

Our patient shall have the morning sickness, the dark-encircled eye, the tumid breast, the distinct areola round the nipple, the full stomach, the absence of her monthly indisposition, and often, too, the feelings of something moving within her eye, and yet, alas, the true cause of all these delusive symptoms may be the early growth of an incurable disease. Medical men cannot be too cautious in these cases. We are told by Valentin, that at Paris, 1718, the Demoiselle Famién had a charge of pregnancy and child-murder brought against her, and the issue proved that she was merely laboring under ovarian dropsy. It is not our intention to enumerate the ordinary distinctive symptoms of this disease, for they are well explained in all the common text-books of midwifery; but as our leading object, in the present article, is to illustrate the grand importance of auscultation in a variety of obstetrical cases, we shall confine our remarks on the diagnosis of ovarian enlargement, to the signs which are appreciable by the ear. As a matter of course, no fœtal pulsation can ever be heard, for there is no independent circulation within the abdomen; not so, however, with the absence of all souffle, or whizzing pulsatory sound. Those readers who have perused attentively the preceding pages, and the interesting memoir by M. Bouillaud in our last number, will be prepared to understand, how any tumors in the belly may

* Dr. Gooch, in his excellent work on the Diseases of Women, tells us of a patient who was taken to the operation-room of a well known hospital for the purpose of being tapped, to evacuate a supposed ovarian dropsy; fortunately she was remanded for further examination, and before the operation day she brought forth a child.

give rise to the production of certain blowing, sawing, or rasping sounds from the adjacent large arteries—they will remember that, whenever a moderate pressure is made over the trajet of any considerable artery, a bruit is heard with the stethoscope. Such, therefore, is the explanation which may be given of the souffle, which is sometimes heard at certain parts of the abdomen, when any abnormal growth is pressing at all upon the aorta or iliac arteries. Our object must, therefore, be to remove, if possible, the pressure, while we are listening: this may occasionally be done by examining our patient in different positions, or by tilting up or pushing to the side the tumor, so as to dislodge it, for the time, from its usual place. If the bruit disappears upon employing any of these manœuvres, then we have reason to suspect the extraneous cause of the phenomenon, or at least our suspicions as to the non-uterine seat of the disease receive confirmation. The longer, too, such a state of things as usually accompanies ovarian disease has existed, the more probable will be the inference, that it is altogether independent of pregnancy; and the farther advanced in life our patient is, the greater will be the chance of the deception. But of these advantages we are quite deprived when the case occurs in a young girl, who, perhaps, has exposed herself to the chance of impregnation—in whose abdomen no distinct or isolated swelling has ever been perceptible, and in whom the only well-marked symptom has been the absence of the menstrual flow. An example from our author's experience will illustrate the subject better than any category of our remarks.

"Catherine ———, ætat. 18, an unmarried girl, was sent into the Lying-in hospital by the directions of an eminent surgeon in the city, by whom she was pronounced pregnant, and in active labor. On paying the evening visit to the labor ward, our attention was attracted by the vociferations of this patient, and the apparent violence of her labor, in which she outvied all the patients in the ward, several of whom were near being delivered at that moment. On pressing the hand over the abdomen, it appeared distended and tense, but the limbs, or body of the child could not be distinguished through the parietes. This circumstance excited some suspicion; and on making a vaginal examination, the os uteri was felt high, and placed so nearly beyond reach, that we could not with certainty pronounce as to its enlargement. The stethoscope was now applied, when no placental or foetal

sound could be any where detected, but the intestinal murmur was evident over every part of the abdomen. On resting my cheek on the parietes, and allowing it to remain there for some time, as the abdominal muscles were in violent spasmodic action, they became gradually fatigued and relaxed, and the spine was distinctly perceptible without any uterine tumor intervening. After purging this patient freely, a copious menstrual discharge set in, which, with a free evacuation of fæces and wind from the bowels, reduced her abdomen to its natural state, and left not a vestige of pregnancy. The account this girl gave of herself was, that her menses had ceased for some months, since when she had been subject to constipated bowels and occasional sickness of stomach; that she had suffered from slight attacks of abdominal pain with spasm, at each return of the period when her menses should have appeared, but that these symptoms had set in with such violence the day before her admission, as to lead those about her to suspect that she was in labor, an opinion which, as we have seen, was corroborated by the medical gentleman who saw her. This spasmodic action of the muscles, attended with abdominal pain, in a great degree resembling aggravated colic, is by no means an unfrequent accompaniment of amenorrhœa, as several such cases have occurred to me. This possibly may have been the cause of loss of character, in more than one instance. Free purging, with the hip-bath, and in very aggravated cases the use of the lancet, is the practice we have had recourse to. In the case of a maid servant, seen some months since, the details are almost identical with those just mentioned, and there was considerable difficulty in convincing the girl's mistress that she was not in labor, when this spasm and pain set in; more particularly, as she had previously a strong suspicion of the girl's being pregnant, from the amenorrhœa and sickness of the stomach under which she suffered." 168.

[TO BE CONTINUED.]

FRACTURES OF THE RIBS.—The best bandage is a belt made elastic with twisted spiral springs, introduced between its folds: this yields gently to the action of breathing, and does not incommodate the patient with any cordlike tightness. To prevent it slipping down, a shoulder-strap, or two, should be fixed to it.

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
BY GRANVILLE SHARP PATTISON, M.D.,
Prof. of Anat. in Jefferson Med. Col., Philada.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JUNE 25, 1834.

No. 29.

[From Cyclopæd. of Prac. Med., p. 45.]

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION.

By EVORY KENNEDY, M. D. Dublin, pp. 288.

II. SIGNS OF PREGNANCY AND DELIVERY.

By W. F. MONTGOMERY.

(Continued from p. 240.)

At the period of the usual cessation of the catamenia, between the fortieth and fiftieth years of age, many females allow themselves to be imposed upon as to their actual condition. Unfortunately for their own sakes, the mere hope and wishing are often the original grounds of their expectation; and the human mind is of that pertinaciously self-creating, self-deluding character, that if once permitted to dwell upon a mere dreamy vision, it soon will turn fancy into reality, and will persist in embodying its own phantom figures. A cautious and experienced physician will always be somewhat reluctant to assent to the fond imaginings of ladies, at a certain period of life; he will generally find that the menses have been irregular in their return for a much longer time than the supposed period of gestation—that they have been absent for several months occasionally—that then they returned either very profusely or very sparingly; similar irregularities may be also observed in the functions of the stomach—the morning sickness has been felt, perhaps, every morning for some weeks—it then leaves, and resumes its annoyance after some time; besides, it is very apt to intrude itself at other times besides the morning, and often it is accompanied or followed by a relaxed state of the bowels, after the free evacuation of which our patient is vastly better, feeling

light, comfortable, and cheerful. In short, there is a general languor and inactivity of the abdominal and pelvic viscera—they seem to be oppressed with a slow-moving circulation, and probably there is venous congestion, especially of the liver, spleen, and uterus. However this may be, true it is that, generally, a very few brisk, warm purgatives, to act vigorously on the bowels and urinary organs, with total abstinence from malt liquors, will often effect a most marvellous improvement, although they cruelly disappoint the hopes of the longing parents, who, like the old Commodore Trunnion and his affectionate spouse, see them all dissipated in an astounding tornado, or cataract of gushing water!!

But we must not carry our credulity too far, and set down every case of supposed pregnancy, in rather elderly females, to the mere phantasies of the mind. There would be no difficulty in adducing a number of cases of genuine conception and utero-gestation after the forty-fifth, fiftieth, and even a year or two later; and there sometimes appears almost an effort on the part of the system to be young again, just before the period which is usually called the change of life.

There remains one other form of disturbed menstruation, which often simulates, for the time at least, some of the phenomena of pregnancy. When menorrhagia is attended with severe forcing pains in the abdomen and back—when clots and apparently-organized membranes are discharged, the ready suspicion is, that an abortion has taken place; and frequently it is a matter of not a little difficulty, to persuade the friends of the female that the symptoms are not those of interrupted pregnancy, and that the expelled

substance is not a regular birth; but let not any medical man be ignorant of the possibly-true nature of the case, and whenever there is room for doubt, his sacred duty ought ever be, to lean to the interpretation of charity. If such and such occurrences have happened to the observation of others, why may they not equally present themselves to ours? Morgagni was one of the first authors to point out, that the unimpregnated uterus will sometimes form on its inner surface an organized layer, which, assuming a triangular form, correspondent to the figure of the womb, may be subsequently expelled with labor-like pains. Even moles, or those fleshy fibrous formations which used to be considered as invariably the result of blighted ova, are occasionally developed within the virgin uterus; and their expulsion may be attended with profuse hæmorrhage and with severe suffering. The possibility of such an occurrence ought never to be absent from the mind of a medical man, and the more imperative is the duty, because almost all the symptoms of pregnancy may be present during their formation. The same remark is applicable to the existence of hydatids within the uterus; most of the cases, indeed, of these singular developements are reputed to be cases of pregnancy, and their true nature is detected only when they are thrown off; and the mistake is the more readily committed, as by far the greater number of cases occur in married females, and the vesicular masses are often co-existent with a blighted ovum.

Probably most of the cases of hydrometra, or hydrops uterinus, occurring in the unimpregnated uterus, are really and truly of a hydatid nature, one large vesicle occupying the whole of the cavity. An interesting example of this rare disease is thus detailed.

"It occurred in the person of a confidential attendant of Lady ———, whom I was desired to see by the late Dr. Evory. She was reported to be in a very dangerous state, from a labor of nearly three days' continuance, which had not then terminated. I found her exhibiting all the appearance of a woman worn out with long continued and unavailing labor, her pains recurring at irregular intervals, and she herself much exhausted by the force and exertion used when they were present. Having passed my hand over the abdomen, it did not give the idea of that of a woman in tedious labor, as, although it was certainly very much distended, fully as much so as that of a pregnant female at the ninth month, yet the body or limbs of the child could not be dis-

covered. The swelling was circumscribed like that of an enlarged uterus, and an obscure fluctuation was observed. On examining by the vagina, the os uteri was found undilated, but the neck evidently developed; and fluctuation was perceptible here, although, on tilting up the uterus, no *abatement* could be distinguished. This patient's limbs had been slightly œdematous a short time before, but the œdema had disappeared. I directed her to be put into a warm bath, and gave her some calomel and jalap, which operated in a couple of hours. Whilst she was straining at stool, a sudden discharge of a reddish-colored watery fluid poured from the vagina; and, on introducing my finger shortly after, I found the os uteri very slightly gaping, and the fluid passing freely from the opening. The uterus felt flabby for some time, but afterwards contracted and descended into the pelvis. No solid substance whatever came away, although a discharge somewhat resembling the lochia kept up for some days. Foderé mentions a somewhat similar case, (vol. i., p. 476,) in which a young woman was accused of infanticide from this cause." 179.

It is not uncommon to find an immense accumulation of water, with a small blighted ovum, in females whose constitutions have been tainted with the syphilitic poison; but, as a matter of course, such a case is widely different from that we have just reported. Having thus shortly glanced at some of the more common causes of the first class of pseudo-pregnancy, viz., of that in which the patient and her friends are misled by actual or bodily deceits, our attention is next drawn to those curious cases, where the deceit or illusion resides only in the brain of the individual herself—when she thinks, and will think, and is resolved to think that she is pregnant, although, perhaps, not one symptom of that state ever has been present. Not unfrequently, indeed, are the catamenia irregular, or even absent, during the time, and then this very defect may give rise to certain feelings in the female breast, which prompt her to believe that she has conceived; and if the patient be hysterical, and be subject at times to flatulence, or to abdominal pulsation, we can, without difficulty, account for some of her strange vagaries; but then such a case belongs rather to the former than to the present section. An exquisite case of the *genuine imaginary* and *purely ideal* pregnancy is given by our author.

"Mary Conner, ætât. 32, who has had two children, the last nearly nine years since, sup-

poses herself pregnant, in which state she has been according to her idea for the last seven years. She has no symptom whatever of pregnancy, not even enlargement of the abdomen; she says she quickened at the fourth month, since which she has constantly felt the motions of the child up to the present period. States that, at the expiration of nine months from the time at which she became pregnant, symptoms of labor set in, which lasted for three days, and went off again; that at the expiration of eighteen months, she was again attacked with labor, and so on every nine months until within the last two years. Her menstrual discharge has continued to occur regularly every third week since the nursing of her last child. She called on me for the purpose of being delivered by instruments, for which she is very anxious, as she says there is no chance of her being delivered without them. My endeavors to convince her that she was not pregnant were of no avail, as she preferred a similar request to another practitioner, who afterwards informed me of it." 182.

Perhaps the most feasible, and certainly the most easily-applicable, mode of explanation of such singular fancies, is to refer them to a sort of partial insanity, or of monomania; they most assuredly seem to be the offspring of a disturbed, and not of a healthy mind; and if by the terms partial insanity, or monomania, is only meant, an aberration of reason on particular subjects, while the faculty is sound upon others, we cannot refuse to class the fond delusions of women, of which we have been speaking, among the catalogue. Whether phrenology be true or not, it will not be denied that the phenomena of such cases may be accounted for, more easily upon its principles, than upon those of any other psychological system: according to its tenets, the organ of philoprogenitiveness is morbidly active.

SIMULATED, OR PRETENDED PREGNANCY.

The motives of women, in wilfully, and with perfect knowledge of the deceit which they are practising upon others, feigning themselves to be pregnant, are various; sometimes they are prompted to it by mere caprice, by vanity, or by the desire to regain the estranged affections of their husbands; at other times, it is one of the many tricks of begging to extort alms, and modern history has shown us that religious fanaticism will borrow its aid; and lastly it is not unfrequently attempted by condemned criminals, as a plea in bar of immediate execution.

It may be worth while to allude for a moment

to the notorious case of Joanna Southcote, who managed to play her cards so cleverly, that she actually persuaded a number of medical men to vouch for the truth of her ludicrous lie. Dr. Reece was quite as satisfied of Joanna's pregnancy, as Joanna was herself; and what grounds of belief are more rational, than those of our senses? Dr. R. had felt the motions of the child!! Dr. John Sims had not it would seem, such a delicately discriminating tact in his fingers; for not only did he not feel the child to move, but he presumed to announce in the public papers, that Joanna's big belly contained no child at all. It must be remembered that Joanna's chaste coyness was so sensitive against any rude curiosity of men, that she would never allow a vaginal examination; her warning spirit had commanded her not to submit to such an indecency. Well, year after year passed away, and no promised Shiloh appeared; the inspiredly-pregnant lady began to droop and languish, and little wonder was it, for already did she number 64 years of age. So full of faith were her disciples however, that they, like good Mussulmen, doubted nothing, and the learned Doctor having some idea of performing the Cæsarian operation, asked her whether in the event of an attack of apoplexy, he should not instantly extract the child in this way. [It was indeed a pity that my father Mr. Robert Shandy was not alive, for doubtless he would have attempted to convince Joanna, that gastrotomy is the only method, by which a child can possibly be delivered, without any injury to the delicate network of the brain!] As it was, Joanna did not approve of the proposal, when mentioned by Dr. Reece, and the prophetic physician's hopes, of being the arch-actor upon so splendid an occasion, were irretrievably dissipated.

Upon dissection, it was found that the tumor, which had been mistaken for the impregnated uterus, was the urinary bladder, which Joanna had the power of keeping distended much longer than ordinary mortals can do, and that the uterus itself was actually smaller than it is usually even in the virgin state!!

The last and most important set of cases remains yet to be mentioned; we allude to those in which the unhappy criminal pleads the existence of pregnancy, to stay the immediate punishment of her guilt; and awful indeed is the responsibility which is incurred by those, who are appointed to decide upon the truth, or falsity of the averment. The woman swears upon her oath that she is with child; it may be a wilful lie, or

it may not; she may have reasons to think that she really is so; and difficult in all, and utterly impossible in some cases, is it to disprove these beyond all doubt. We have seen by the preceding pages, that in other instances of alleged pregnancy, we invariably avail ourselves of the account which our patients give of their state and of their feelings, and rarely will a medical man presume, to pronounce upon its existence unequivocally, when the female, who may have borne children before, has no suspicion of it. Equally reluctant must he ever be, to assert boldly its nonexistence, during the early months, if his patient believes and reports otherwise; in such a predicament is he situated, when called upon for his opinion, as to the condition of the convicted criminal; he has the solemn oath of the party staring broadly before his eyes, and hardy indeed must he be, who without any wavering will assert its utter falsehood. We do not mean by these remarks to deter the physician from intrepidly doing his duty; we do not advise him to speak against his conviction, even for the sake of that gentlest virtue "mercy;" justice has a higher claim than humanity, and truth must be preferred to compassion; but we earnestly adjure him, to ponder the subject long and well, to give the benefit of every rational doubt to the prisoner, and only upon the clearest, and most irrefragable evidence, to dare to stamp a negative upon the wretch's affirmation. The following case is adduced to show the exceedingly painful duty which is sometimes imposed upon a medical man, and at the same time as an illustration of the murderous ferocity of our law in this particular. The case occurred to Dr. Franklin, of Limerick.

"March 16, 1831, Margaret Mackessy, ætat. 35, wife of Edward Mackessy, of Aharoulk, was tried before the Honorable Baron Pennefather, for the wilful murder of Mary Mackessy, her mother-in-law. It was a case of circumstantial evidence. The principal witness for the prosecution was Honora Mackessy, a little girl of eleven years of age, the neice of the prisoner's husband. The ill-fated woman was, after a most patient and deeply interesting trial, found guilty of the crime, without the least hesitation, by the jury: and the learned Baron sentenced her for execution on the succeeding Saturday, and her body for dissection. After sentence was pronounced by the judge, the unfortunate woman pleaded pregnancy, and his lordship directed, that a practitioner of midwifery should be at once procured, when I was sent for, and directed by

the court to examine the convict; his lordship at the same time, laying down as the law, that *pregnancy alone without quickening of the child*, would not be sufficient ground for staying the execution, and directing me to examine minutely as to both these points. The convict was removed from the dock to a room adjoining the court, where I examined her. She admitted to me, that she had been suckling a child to within a month or six weeks of her being sent to prison. That she had menstruated once after she had weaned the child, and that from the time she had so menstruated, to the day of her conviction, it was near two months.

"This was merely her own assertion; but though I minutely questioned and examined her on the signs and symptoms of pregnancy, she refused to give the required answers, and merely contented herself with the assertion, that for two months she had not menstruated; but at the same time she admitted she had not quickened. Although I gave her the benefit of her assertion, still upon a careful examination of the abdomen, I was clearly satisfied that she had not quickened. She was then reconducted to the dock, and after being sworn, I was examined by Baron Pennefather; when I stated my opinion to be, that though the convict might be young with child, which was very doubtful, as it was supported solely by her own declaration, that I was of opinion she had not quickened; and further added, that this opinion as to quickening was confirmed by the admission of the convict herself. Under these circumstances the Baron did not stay her sentence, and she was executed on the 19th. I waited with much anxiety the result of the *post mortem* examination, which was conducted the same day at the County Infirmary, in presence of six professional gentlemen, when it was ascertained beyond all doubt that she was not pregnant." 191.

Here then is an instance of the solemn interpretation of the law of this land, by a judge upon the bench; of the law which, to use the forcible language of our author, condemns to death a child in the fifteenth week of its existence, while a child in the sixteenth (this being the usual period of quickening,) is saved from such an unjust and unmerited fate!! The thing indeed is monstrous; and tenfold more monstrous now, than at the time of enactment; for then it was the common belief that fetal life did not commence until quickening; but no such apology can be alleged for legislators of the nineteenth century; and yet not ten years back, the following enact-

ment was guided, in the distinction of its clauses, by an utter falsehood: The 43d section of the 9th Geo. IV. c. 31, provides—

“That if any person, with intent to procure the miscarriage of any woman, then being quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her, any poison or other noxious thing, or shall use any instrument, or other means whatever, with the like intent, every such offender shall be guilty of felony, and being convicted thereof, shall suffer death as a felon: and if any person, with intent to procure the miscarriage of any woman, not being or not being found to be then quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her, any medicine or other thing, or shall use any instrument or other means whatever, with the like intent, every such offender, and every person counseling, aiding, or abetting such offender, shall be guilty of felony, and being convicted thereof, shall be liable, at the discretion of the court, to be transported beyond the seas, for any term not exceeding fourteen years, nor less than seven years, or to be imprisoned, with or without hard labor, in the common gaol or house of correction, for any term not exceeding three years; and if a male, to be once, twice, or thrice publicly or privately whipped, if the court shall so think fit, in addition to such imprisonment.” 265.

The meaning of the words “quick with child” are settled by a decision of Judge Lawrence in the case of *Rex v. Phillips*; after hearing the evidence of the medical men, he decided that a woman could not be considered quick with child, until “*she had felt*” the child alive and quick within her. Whose assertion then can be taken, but that of the culprit alone? Need we say a single word to show the worse than Vandal ignorance, and criminal recklessness, of those who uphold the present law? But, as if reason was laughed at in the framing of some statutes, and as if legislation and jurisprudence were surely the antipodes of common sense and consistency, the strange anomaly has been perpetrated, that by the law of real property an infant “*en ventre sa mere*” may take an estate from the moment of its conception, and yet be hanged four months afterwards for the crime of its mother. It is however but justice to acknowledge that the same rigorous interpretation of the law is not always acted upon, as in the case, at which Baron Pennefather presided. A woman was tried at Carlow, on the 19th of March, 1830, before the

Chief Justice of the King’s Bench, for the murder of her husband, and found guilty: she pleaded pregnancy in stay of immediate execution, and a jury of matrons was impaneled to try the truth of her plea. The result of the deliberations of these matrons! (some of whom were unmarried, and not one of whom had ever attended a case of labor,) was, that “they could give no opinion on the subject—some of them considering that the culprit was, others that she was not with child.” Fortunately alike for justice and humanity, Drs. Porter and Byrne were directed to examine the woman. She stated that she had quickened; this they did not believe—but they admitted that there were sufficient grounds to justify the suspicion of pregnancy, advanced probably to 1½ or 2 months. Knowing, however, the extreme uncertainty of any data, they declined to swear on the subject, and suggested to the Judge, that the prisoner should get the benefit of their doubt. In this, he humanely concurred with the physicians, and granted a respite for a time. This woman was delivered of a male child on the 10th Sept., and died on the 22d of October following in jail.

The preceding case, among others, is a memorable instance of the beautifully lenient and enlightened spirit of English law. On a subject involving life and death, surrounded with difficulties and enveloped in uncertainty, the arbitration rests with a jury of twelve women—women, too, taken sometimes from the lowest dregs of society, such as frequent the purlieus of a court of law, and are akin to the witnesses “with the straw in their shoe,” ready to say any thing—ready to swear to any thing! Let us hope that this blot of ignorance and of inhumanity may soon be wiped from our criminal code, and that the same virtuous and distinguished zeal which prompted three of our medical brethren, at a late assizes in Norwich, to step forward to proclaim the ignorant falsehood of the jury, and the iniquity of the verdict, may animate the breast of every member of our profession. A woman is condemned at Norwich, to death on the 3d of March—she pleads pregnancy in arrest of the execution: 12 matrons are directed to try whether she is pregnant with a “*quick*” child. After an hour’s deliberation, they decide that she is not “quick with child,” and the prisoner is, therefore, ordered for execution. Messrs. Scott, Crosse, and Johnson, eminent surgeons of the place, here nobly interfered; they examined the woman, and found her not only pregnant, but

actually quick with child. Baron Bolland, the presiding judge, immediately reprieved her until after the delivery. On the 11th of July, she was delivered of a large healthy female child. Before leaving the interesting subject of the propriety, or not, of ever involving the life of an innocent being in the guilt of its mother, we are tempted to lay before our readers the following extract from the notes appended to the present work, by an eminent barrister, Mr. Smith. The suggestion appears to us to be an exceedingly good one, or, at all events, it would effect a mighty improvement on the present existing enactments of our statutes.

"If, however, any given period of pregnancy must still be fixed upon as determining the guilt of the offender, it would, perhaps, be more consistent with sound sense, to fix that period at the end of the seventh month of pregnancy, and to punish with greater severity the attempt to expel the fœtus from the womb, at a time when it is not capable of individual life, than when greater development and growth have rendered its separate existence possible. Such a distinction, at all events, would afford surer grounds for a satisfactory conclusion, than the uncertain test which has been adopted in the statute." 267.

There is still one other case, in which a woman may intentionally feign pregnancy, and that is, when the succession to property is concerned. On the death of her husband, or of any other testator who may have left a legacy to her offspring, and, failing that, to the next heir, or to a charity, she, conscious all the time of the deceit which she is practising, may assert that she is with child, in order to gain time for the perpetration of some other fraud, as, for example, the substitution of a child not her own. The law, however, steps in here, and supplies a remedy; the next heir, whether he be heir-at-law, or merely a devisee for life, or in tail or in fee, may obtain the issue of a writ "*de ventre inspiciendo*," for the purpose of inquiring into the truth of the plea. The writ is granted by the Court of Chancery, and issued to the sheriff, who summons a jury to ascertain the reputed pregnancy; and if a verdict favorable to the woman be returned, means are taken to prevent all male access until the period of pregnancy has expired, when, if the plea prove to be unfounded, (forty weeks, according to Britton, being the longest time allowed; for, after that period, the pregnancy is declared illegitimate,) the next heir is entitled to demand immediate possession of the property;

and among the old lawgivers, severe penalties were even inflicted on the offending female.*

It is important to know that, in an inquiry under the writ "*de ventre inspiciendo*," whether or not the female be pregnant, the result does not depend upon the fact of quickening having taken place; the sheriff is directed merely to cause the woman to be examined, and to return "*utrum impregnata sit, necne*;" and the fact, that the writ commences by assigning as a reason, that "*ipsa falso dicit se esse pregnantem cum non sit*," seems to show, that the mere declaration of the widow herself would not be sufficient evidence of pregnancy, if unsupported by any circumstances, whence their probable truth or falsehood might be ascertained.

We must now draw to a close, leaving a few subjects of Dr. Kennedy's book unalluded to. It is one of sterling merit, of great practical utility, and better calculated to enforce the general adoption of auscultation, in obstetrical pursuits, than any work which has issued, either from our own or from the foreign medical press.

It is, indeed, gratifying to remark the zeal, the industry, and the high professional ability which so much distinguish many of our brethren in Dublin. Dr. Kennedy has proved himself one of the very ablest among them, and has conferred a great practical benefit on the public at large, by the publication of his excellent observations.

We had nearly finished our review of Dr. Kennedy's book, when the very able and interesting paper on the Signs of Pregnancy and Delivery, by Dr. Montgomery, Professor of Midwifery to the King's and Queen's College of Physicians in Ireland, came to hand. Our notice of it must, therefore, necessarily be a brief one; and, to avoid all repetition, we shall confine our remarks chiefly to two very important, and still very obscure topics, which well deserve the minute attention of every obstetrical physician—we mean, the history of what are usually called moles; or

* The direction contained in the writ is in the following words:—

"*Tibi præcipimus quod assumptis tecum duodecim discretis et legalibus militibus et duodecim discretis et legalibus mulieribus de comitatu tuo, in propria persona tuâ accedas ad præfatam R. et eam coram præfatis militibus videri et diligenter examinari et tractari facias pubera et ventrem in omnibus modis, quibus melius certiorari poteris utrum impregnata sit necne. Et si ipsæ mulieres ipsam R. impregnatam invenerint: tunc diligenter inquiras ab eis de tempore quo ipsam crederint fore paritura. Et inquisitionem quam inde feceris, scire facias justiciariis,*" &c.

false conceptions, and that of a structure which has given rise to even a greater contrariety of sentiment—the corpora lutea of the ovaries.

MOLES, OR FALSE CONCEPTIONS.

The term mole has, unfortunately, been applied to a variety of formations, differing widely and essentially from each other, not only in their appearance and texture, but also in the causes which have produced them. Had but a proper anatomical investigation been employed in the inquiries of medical men upon the true nature and origin of these bodies, the confusion and uncertainty which have hitherto, and do still perplex us, might have unquestionably been, in a great measure at least, removed. A blighted ovum, the remains of a placenta, masses of coagulated and apparently-organized, blood, and even sarcomatous and other tumors of the womb, have all been classed under the appellation of "mole."

It cannot, then, be surprising that physicians have differed much in their opinions, whether these formations are in all cases consecutive to, and the results of, impregnation, or whether they may be developed within the virgin uterus. The weight of trustworthy medical authority leans certainly to the former of these opinions; but, while it is admitted on all hands, that not only coagula of blood, by remaining for a length of time in the womb, may assume a globular form, corresponding to the containing cavity, and may gradually lose all the coloring particles, so that nothing but a fibrous texture remains, but also that the unimpregnated organ throws off, under certain circumstances, membranous formations, it will require the utmost caution, as well as an intimate knowledge of the structure and appearances of other uterine contents, to pronounce decidedly, in all cases, whether they be truly the result of conception or not. If, indeed, any real remains of the embryo itself, or of its placenta, are discovered, then the question is settled. Voigtel has rightly remarked that, in some moles—

"From an originally imperfect development of the ovum, or an injury to the foetus at its first formation, it appears as a shapeless mass, or *the foetus itself is completely destroyed, and only its membranes and the placenta* continue to grow for a time and get thickened and fleshy, or filled with fluid only, or form membranous, fibrous masses, or hydatids, or assume other unnatural appearances." 22.

A minute and very delicate examination of the discharged mass, under the surface of water, is

the only method by which we can hope to unravel and show the anatomy of its structure; and Dr. Montgomery, from repeated experience, assures us, that if we will but take the necessary trouble and time, we shall generally be enabled to decide upon its true nature. The mole is to be first very carefully cleansed from all adhering blood by repeated ablutions, and the dissection is to be performed with delicate, blunt instruments. His observations are so interesting, that we shall give them in his own words.

"If in the progress of such an investigation we discover a foetus, or even a part of one, it would of course be decisive; but this may not be the case, and yet we may recognise all the other component parts of the ovum presenting several structures which are never produced by disease.* First, we may have the decidua covering either partially or completely the substance under examination, distinguished by its soft, rich, pulpy appearance and strong red color, its external or uterine surface rough and unequal, and, when well freed from the coagulated blood, exhibiting numerous small round foramina,† capable of admitting a pin: its internal surface is smooth, and exhibits little or no appearance of these openings. This coat may be found attached to the ovum, or entirely torn away and separated from it during its expulsion; but in either case these characters mark the true decidua, and are not found in the products of disease. Within this outer coat another is found immediately investing the membranes of the ovum, the outer surface of which is smooth, and its inner completely filamentous, receiving the beautiful arborescent villi which cover and shoot from the surface of the chorion, forming the bond of union between it and this inner decidua. The discovery of these arborescent villi or capillaries is proof positive of the nature of the product, as they are never found presenting like characters, except upon the chorion or uterine surface of the placenta." 21.

This description, it will be understood, applies in a particular manner to what may be called the "embryotic moles," those, namely, which are produced by a blighted or otherwise imperfect ovum; and if the accuracy of its details, espe-

* "See a case related by Mr. Lemon, in the Edinburgh Medical and Surgical Journal, vol. xi. p. 96. The writer has in his museum more than one specimen illustrative of this absence of the foetus where the other parts of the ovum exist."

† See Hunter's plates of the gravid uterus, xxix. fig. 11, and also plates xxviii., xxx., xxxiii., xxxiv.

cially as regards the decidua membrane, may be altogether depended upon, a ready and very convenient method of distinguishing the mole of conception from the casual and independent mole is furnished. But the very circumstance of the decidua being, in many cases, retained, and the surface of the mass being then quite smooth and glistening, and devoid of the shagginess which is characteristic of this membrane, is a sufficient proof that we cannot with safety rely on one feature alone. A case which very lately came under our notice, is worthy of notice on several accounts.

A lady, the mother of six children, was seized with the symptoms of threatened abortion, in consequence of the jolting of a carriage on an uneven road. By rest, and the use of refrigerant medicines, they were checked for a time; but after the lapse of two weeks they returned, and as the patient's health began to suffer much, and the quantity of blood which, at repeated discharges, had been lost, precluded the hope of ultimately preventing the miscarriage, it was determined, in consultation with one of the most eminent accoucheurs in London, rather to accelerate than to endeavor to retard it. The os uteri was open enough to admit the point of the finger, and a thin, mucous discharge dribbled from the orifice. An elastic gum bougie was, therefore, introduced, and, being pushed up into the cavity of the womb, was permitted to remain there for twenty hours; on the following day a larger one was substituted, and a brisk purgative administered. During the operation of the medicine, after some sharp pains felt in the region of the womb, the patient was sensible of something having come away from her. It was examined and found to consist of four sanguineous lumps, which had apparently been joined together and formed a globular mass, but which had been torn during the expulsion. These lumps were about an inch thick, and had the appearance of densely coagulated blood, from which, in some parts, the coloring matter had been removed, so as to leave only the fibrinous portion. The outer or uterine surfaces were smooth and uniform; the inner presented a network of fibrinous fasciculi, not unlike that of the columnæ carneæ in the ventricles of the heart.

On introducing the finger into the vagina, the mouth of the womb was found hard and jagged, and not large enough to permit it to be passed into its cavity; so that no part of a foetus could be felt. The patient being now comfortable, enjoyed some hours of refreshing sleep, and upon

visiting her next morning, we found her better in every respect. The impression upon our minds was, that the womb had emptied itself of all its contents, and that in short, there had been a false conception. Twenty-four hours afterwards, a foetus, of about three and a half months, with the chord and placenta, adhering and quite entire, but with no distinct membranes, was expelled with very little pain.

We have adduced this case to prove that we must not always expect to find the villous and shaggy surfaces in even indubitable products of conception; and moreover that these products may resemble most closely in many particulars, some of the other substances which have been denominated moles, and which many authors assure us, may be formed in females who never have had any sexual intercourse.

A useful lesson for the exercise of caution in giving our professional opinion, may likewise be drawn from the preceding history. Dr. Montgomery mentions a case in which a similar substance was expelled immediately after the discharge of a healthy ovum, containing a well-formed foetus of four months.

"The substance had the external characters usually considered as those of a mole, and was of the form and size of a large orange. When opened, no trace of a foetus could be discovered, but there was a small remnant of an umbilical cord, which was ragged at its unattached extremity: the fleshy envelope varied in thickness from an eighth to half an inch, the thickest part being that where the placenta was situated, the internal surface of which exhibited very remarkably the tubercular disease represented in Denman's ninth plate." 22.

[TO BE CONTINUED.]

How to stop BLEEDING.—The Revue Médicale states, that when all other means fail in arresting hæmorrhage, a little oil of tobacco has immediately succeeded. That which collects in the stems of pipes which have long been smoked will answer perfectly. The discovery was made by Humel, a chemist at Berlin, and his mixture is eight ounces of distilled water, two drams of oil of tobacco, and a few drops of ethereal animal oil. This has been found so effectual, that, by a recent decree of the Minister of the Interior at Munich, all apothecaries are ordered to keep it prepared.—*Mechanic's Magazine.*

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 2, 1834.

No. 30

[From the Cyclopædia of Practical Medicine, p. 45.]

I. OBSERVATIONS ON OBSTETRIC AUSCULTATION.—By E. KENNEDY, M.D. Dub., p. 288

II. SIGNS OF PREGNANCY AND DELIVERY.—By W. F. MONTGOMERY.

(Continued from p. 248.)

On the whole, from an attentive examination of the sentiments of the most eminent obstetrical writers, we are disposed to agree with the conclusion to which our author has arrived; viz. that all moles which exhibit traces of the component structures of the ovum, such as are detailed in the description which we have extracted from Voigtel, are the results of impregnation, and are never discovered in the virgin womb. While however we make this admission, our earnest advice is, to exercise the greatest circumspection, to inquire diligently into all the accompanying circumstances of the case in question, and to avoid any rash and unpremeditated decision.

The subject is not yet “hors de combat.” A similar remark is applicable to another uterine formation, that of hydatids; Denman, Gardien, and Sir C. Clark admitting their accidental and independent development; while Baudelocque, Voigtel, and the French writers of the present day, regard them as invariably the products of conception.

ON THE CORPORA LUTEA.

If we examine the ovaries of a woman, within a few days after impregnation, we shall find that one of these organs exhibits traces of the recent escape of the germ; it is larger and more vascular than the other, and is also fuller and softer to the touch; but this increase of size is not uniform over the whole surface; one point projects more than the rest of the gland, and if this part be carefully observed, a small slit or torn orifice may be seen there. Sir. E. Home describes it in a woman who died eight days, it is supposed, after impregnation, as follows:—

“The right ovarium had a small torn orifice upon the most prominent part of its external surface. We slit it open in a longitudinal direction, in a line close to the edge of this orifice; the orifice was found to lead to a cavity filled up with coagulated blood, and surrounded by a yellowish organized substance.” 32.

This projecting part of the ovarium always indicates the spot whence the vivified ovum has escaped; and if the examination is made soon after that event, there is seldom any difficulty

of recognizing it; the appearances, however, become less and less distinct, according to the length of the interval which has elapsed since impregnation, and finally they cease altogether, with the exception of the cicatrix of the wound, which continues longer than the rest.

We can trace the series of changes more easily and satisfactorily in some of the lower animals; in the cow and sheep for example, the swollen part of the ovary projects we are told by Dr. M. as a parasitic tumor hanging from it; and in the common sow "the ovaries after conception appear literally like branches of round berries, from the great prominence of the numerous corpora lutea." The next step in the investigation, is to ascertain the internal structure and appearances of the part; and as it is of great importance that strictly accurate notions should be had on this subject, we cannot do better than extract the following description, which is given in Dr. Montgomery's Memoir, of a true corpus luteum.

"In form and size it is almost always an oval, with its longer axis varying from four to five eighths of an inch, and the shorter from three to four eighths; its thickness is generally less than its breadth.

Its texture is obviously and strikingly glandular, resembling a section of the human kidney; or, as some one has said, it is like a miniature of the particular sections of the brain called by anatomists *centrum ovale*. William Hunter describes it as 'tender and friable, like glandular flesh.'

It is very vascular, small vessels being very frequently visible without any preparation; but if fine colored injections have been previously thrown into one of the branches of the spermatic arteries going to the ovary, the vessels of the corpus luteum will be filled with the coloring matter, and are to be seen very distinctly running from its circumference towards its centre.

Its color is, as its name implies, a dull yellow, very similar to that of the buffy coat of the blood; exhibiting generally, when recently exposed, a slightly reddish tinge, '*ex flavo rubens*.' Haller." 32.

We have seen that the cavity of the corpus luteum was found by Sir E. Home filled with coagulated blood, in a woman, who died eight days after conception; this blood becomes gradually absorbed; the little cavity becomes lined and surrounded with a tough white membrane; its dimensions are contracted, so that in three, or four months, it is often not larger than a grain of wheat, and subsequently it is entirely obliterated; and in its place there remains only an inner or central white radiated cicatrix; this cicatrix forms an essential character, we are told by the author, distinguishing the mark of the corpus luteum from that of any other formation, which may be confounded with it: it is not however permanent.

"The exact period of its total disappearance we are unable to state; but we have found it distinctly visible so late as at the end of five months after delivery at the full time, but not beyond this period; and the corpus luteum of a preceding conception is never to be found along with that of a more recent, when gestation has arrived at its full term; but in cases of miscarriage repeated at short intervals, it may." 32.

The following abstract of three dissections, will illustrate the appearances of the corpora lutea, in their different stages. *Obs. 1.* A woman died of inflammation of the womb, a few days after delivery; the white central cicatrix was very distinct; and externally the ovary exhibited the superficial cicatrix, and the swelling, or projection of the part. *Obs. 2.* In a woman who died in five weeks after delivery at the full time, the corpus luteum was found to be diminished to one half of its original dimensions; its texture had become firmer and more consolidated, and the yellow color was indistinct in numerous points, so that it was much paler throughout, than at an earlier period; the radiated central cicatrix was quite distinct. the external surface of the ovary was fuller and more prominent over this part, and the cicatrix of the superficial fissure was well marked. Although this woman had borne six children, there was only one cicatrix observable on each ovary.

Obs. 3. In a woman, who died twelve weeks after delivery, the external swelling on the ovary was greatly diminished, but it was still sufficiently obvious to indicate the exact situation of the corpus luteum; the superficial cicatrix was well seen; the corpus luteum itself had lost much of its color; and what remained, became, on immersion into spirits, of a light grey

shade; the texture of its substance was more condensed, and resembled that of a cut apple; its dimensions, especially in breadth, were reduced to about one third, or rather less; but the central radiated cicatrix was still distinctly observable.

In a young woman who died five months after the delivery of her first child, the ovary retained very little of its increased size or altered form; the prominence was hardly to be recognized; but the external cicatrix was perfectly obvious. When opened the corpus luteum exhibited its peculiar color, only in one very small spot, rather larger than a mustard seed, within which was observed the central radiated cicatrix; the yellow color completely disappeared when the ovary was emersed in proof spirit, which does not happen with a corpus luteum examined during gestation, or about the period of delivery.

It is quite an erroneous supposition that corpora lutea are permanent during life, and that we can predict from the appearance of the ovaries, the number of children which the woman has borne. Dr. M. has never been able to detect their existence when more than five or six months from the time of delivery have elapsed. Even the external cicatrix becomes gradually less distinct, and may be at length quite effaced, so that the ovaries of women who have borne many children, may present only one or two scars, and perhaps none at all, if the interval since the last gestation has been long.

It is to be remembered, that if the ovaria become diseased, and especially if they have ever been the seat of suppuration, scars very like to those left by the escape of ova, may be formed, and thus give rise to very serious mistakes. The conclusion which Dr. M. draws from his repeated observations and dissections of a great number of women, and a much larger number of brute animals, is that he "has never in any one instance seen the corpus luteum, having the characters as above described belonging to it, except in females who had previously been impregnated, and who had conceived; and that such a corpus luteum was never found in a virgin animal." And again he says, "we believe no one ever found a fœtus in utero without a corpus luteum in the ovary; and that the truth of Haller's corollary 'nullus unquam conceptus, est absque corpore luteo,' remains undisputed." Such also were the sentiments of De Graaf, of Dr. Haighton, and of Mr. Cruickshank. Occasionally indeed a corpus luteum has been discovered without a fœtus, or the number of the corpora may exceed the number of the fœtuses which are developed at the time. The great master of physiology has noticed this seeming incongruity, in his *Elementa*—"si unquam absque fœtu, corpus luteum in ovario repertum est, quod est rarissimum, credibile est eum fœtum abortu perditum, aut alio modo destructum disparuisse." Having thus ably explained the characters of the genuine corpora lutea, our author proceeds to examine the opinions of those physiologists who have maintained, that they may be formed in the ovaries of virgin females, and in no part of his memoir has he been more felicitous and conclusive, than in his refutation of those doctrines. He most satisfactorily shows that authors have upon this, as too often upon other subjects, which can only be determined by minute and repeated personal observations, idly followed each other's assertions, and have rarely hazarded their opinions upon their own authority. The testimony of the distinguished Blumenbach has been frequently referred to on this subject, and yet it is very remarkable, that in no one part of his dissertation does even he "speak as from personal observation or examination of the subject by himself, but confines himself to physiological reasonings grounded on the facts observed by others,* from the consideration of which he declares, his *belief*† in one place, and his *suspicion*‡ in another, that the fact may be so, but he nowhere asserts that he saw an instance of it; and he adds that all the cases his reading furnished him with, happened in Italian girls, whose climate he appears to suspect might have something to do with the matter."

Meckel, too, who has been adduced in confirmation of the same views, nowhere distinctly asserts that a true corpus luteum is ever seen in the virgin ovary; his words are—

"The influence of the male semen is the ordinary and regular cause of this change, which,

* " 'Corpora lutea in innuptis observarunt auctores.' Op. cit. p. 113,"

† " 'Et ita corpora lutea in virgineo corpore oriri confido.' "

‡ " 'Non absimilem originem suspicor.' Op. cit. p. 113,"

however, *it appears*, may be effected under the influence of other stimuli, *perhaps* by the imagination or unnatural enjoyments."

And again—

"In truth, many of these rare cases, in which corpora lutea have been found in unmarried women, and in girls having the physical marks of virginity, allow the belief that the formation of these bodies *had been preceded by sexual intercourse and fecundation.*" 35.

Now surely these hesitating, and at best only conjectural opinions, are far outweighed by the decisive evidence, drawn from a multitude of experiments performed on purpose, by the authors to whom we formerly alluded. No words can be stronger than those employed by Dr. Haighton in a paper read before the Royal Society of London.

"I decline trespassing on your patience, and therefore lay before you only the conclusion; which is, that in the great variety of experiments on brute animals which my physiological inquiries have led me to conduct, as well as in the extensive opportunities I have had of observing the ovaries in the human subject, I have never seen a recently formed corpus luteum unattended with some circumstance or other connecting it very evidently with impregnation." 36.

With the truth of these remarks, the most eminent anatomists of the present day coincided upon the trial at Liverpool, in 1808, of Mr. Angus, for the supposed murder of Miss Burris.

"It was not until after the trial that the ovaria were examined. They were then divided in the presence of a number of physicians, and a corpus luteum distinctly seen in one of them. Mr. Hay took the uterus and its appendages to London, and showed it to the most eminent practitioners there. He received certificates from Drs. Denman and Haighton, Messrs. Henry Cline, Charles M. Clarke, Astley Cooper, and Abernethy, all stating that it exhibited appearances that could alone be explained on the idea of an advanced state of pregnancy. *And it appears to have been universally allowed, that the discovery of the corpus luteum proved the fact beyond a doubt.*" 37.

Respectable writers have frequently described appearances in virgin ovaries, which most inaccurately have been mistaken for true corpora lutea; and indeed, every one who is in the habit of examining dead bodies must have upon many occasions found yellow spots in these organs, quite unconnected with any previous impregnation; but these different appearances may be distinguished by the accurate observer.

"We think that those who have supposed or asserted that they may exist without impregnation, and of course be found in the virgin ovary, have been led into the error by confounding appearances and structures essentially different, and in fact having only one character in common, which is their color, altogether forgetting that 'every yellow substance in the ovary is not a corpus luteum.'* It is allowed by those writers that 'the corpora lutea of virgins may in general be distinguished by their smaller size, and by the less extensive vascularity of the contiguous parts of the ovarium.'† Now we have seen several of these virgin corpora lutea, as they are unhappily called, and have preserved several specimens of them, and according to our experience they differ from those of impregnation in all the following particulars:—1. there is no prominence or enlargement of the ovary over them; 2. the external cicatrix is wanting; 3. there are often several of them in both ovaries, especially in patients who have died of tubercular diseases; 4. they are not vascular, and cannot be injected; 5. their texture is sometimes so infim, that they seem to consist merely of the remains of a coagulum, and at others appear fibro-cellular and resembling that of the internal structure of the ovary, but in no instance did we ever see them presenting the soft, rich, and regularly glandular appearance which Hunter meant to express when he described them as 'tender and friable like glandular flesh;‡' 6. they have neither the central cavity, nor the radiated cicatrix which results from its closure," 37.

Our reasons for having selected the subject of the corpora lutea for illustration, in preference

* "Meckel, *supra* citat."

† Description of Gravid Uterus, p. 14

‡ Mr. Stanley and Dr. Blundell.

to the other post-mortem signs of impregnation, must be now abundantly evident. Hitherto there has been nothing like certainty, and no congruity of sentiments, upon the true nature and the true origin of these formations. Upon a trial which took place some years ago in Edinburgh, the most opposite and inconsistent evidence was given by the medical men who were examined as witnesses. Four students had exhumed the body of an elderly female, who was unmarried and a virgin; and when they were apprehended, the corpse was found to be so disfigured, that no accurate identification could be made. It was alleged in the defence of the prisoners, who denied the charge, that a genuine corpus luteum had been found in one of the ovaries; and a number of surgeons who were summoned to pronounce upon this appearance, and, at the same time, to determine whether it should be admitted as a proof of the person having been ever impregnated. One half of them maintained the affirmative of both these questions, and the other half were of the opposite opinion, so that no safe deductions could possibly be drawn from the medical evidence. The body was afterwards identified, by a dentist producing a cast which he had taken of the gums.

Several of the other topics treated of in this Essay are equally interesting and instructive, especially those which relate to the occasional occurrence not only of conception, but even of delivery, without the consciousness of the female, while asleep, or during the stupor of an hysterical paroxysm. Some may, perhaps, be inclined to smile with incredulity at the bare mention of such possibilities; let them smile on, if it pleases them, but let them cease their incredulity—or rather, we should term it, their ignorant presumption. Capuron, Fodere, Marc, Dr. Gooch, Mr. Cusack, and many others, have met with cases which fully prove the first of these positions. The language of the first of these authors is very explicit.

“‘It is a fact (says Capuron), which experience has more than once confirmed, that a woman may become with child while in a state of hysteria, under the influence of narcotics, during asphyxia, drunkenness, or *deep sleep*, and consequently without being conscious of it, or sharing the enjoyment of the man who dishonors her;’ and in proof he mentions having attended a young woman who was got with child while totally unconscious, being buried in a deep sleep produced by punch given her by her paramor.* She became aware of her condition for the first time when she felt the sensation of motion in the fourth month.” 28.

Equally unimpeachable are the authorities which may be adduced, to prove that delivery has actually taken place, without any consciousness of the fact.

“In the London Practice of Midwifery,† a work generally ascribed to a late very distinguished practitioner, we find the following account. ‘A lady of great respectability, the wife of a peer of the realm, was actually delivered once in her sleep: she immediately awaked her husband, being a little alarmed at finding one more in bed than was before.’ ” 44.

The possibility of these occurrences ought ever to be kept in mind by the medical jurist and the friend of humanity; for we have seen that a female may not only incur all the moral turpitude of dissoluteness, but even be exposed to the aggravated charge of infanticide; and yet be unconscious of the act of infamy on the one hand, and of her delivery and of the death of the child, on the other.

Those who are anxious for particulars should consult the original essay; they will be amply rewarded by a diligent perusal of it. It contains a vast quantity of highly useful professional information, and, on the whole, is one of the most able contributions to the excellent Cyclopædia of Practical Medicine.—*Medico-Chirurgical Review*.

INTRODUCTION OF AIR INTO THE VEINS.

The Boston Medical and Surgical Journal of the 14th May, contains some interesting experiments on this subject by Dr. Benjamin F. Wing. The experiments were performed on rabbits and sheep. The air thrown with a small syringe into the jugular vein of a rabbit, produced a gurgling noise in the region of the heart, convulsive struggles, and death in about

* See Med. Leg. relat. aux Accouchemens, p. 57, 84.

† Fifth Edition, p. 87. See also Barlow's Essays on Surgery and Midwifery, p. 182.

a minute and a half. The coronary vessels of the heart were injected, the right auricle, ventricle and vena cava were distended with air and some coagulated blood, the left auricle nearly empty, and the right entirely so. The quantity of air injected, varied from one to three fluid ounces. The effects of the experiment on sheep appeared similar to those manifested in the rabbit, and in proportion to the quantity of air introduced. Six fluid ounces thrown into the jugular of a sheep produced death; but one ounce was only productive of the gurgling noise in the heart, difficult respiration and spasms, which soon subsided leaving the animal in health. Dr. Wing, says—

“By reference to these experiments it will be seen, as would naturally be inferred, that the first evidence of the presence of air is disturbance in the heart, increasing until its action is entirely suspended,—not by a gradual diminution of its power, rendering the pulsations weaker and weaker, but suddenly stopped in its high tone of action. Difficult respiration succeeds the tumultuous action of the heart, and increases to gasping at lengthened intervals, until this function also ceases. The muscular system is, to all appearance, at first only excited to increased action by the pain endured, nor does this action differ from that which is testified by the animal when an incision is made preparatory to the experiment, until the animal approaches the agonies of death, when it becomes universally spasmodic.”

The Dr. was led to these experiments, from witnessing the death of a patient under the operation of the knife, which the surgeon attributed to the absorption of air into the veins; but Dr. Wing does not pronounce his experiments as proving the proposition.

CONFIRMATION OF SIR CHAS. BELL'S OPINIONS ON THE FUNCTIONS OF THE ANTERIOR AND POSTERIOR FASCICULI OF THE SPINAL NERVES.

Our attention has been recently drawn to a very valuable paper of Professor Muller, of Bonn, in a late number of the *Annales des Sciences Naturelles*. The experiments which he adduces are most satisfactory, and will be no doubt considered conclusive, even in Germany, where the doctrine of the separate functions of the abdominal and dorsal roots of the spinal nerves has not been altogether assented to. Meckel, Rudolphi, Weber, and others have admitted it, only as conjectural; our author himself performed some experiments in 1824, with the view of ascertaining its correctness, but the results were far from being uniform and decisive. Bellingeri, in Italy, was also engaged about that time in similar researches, and the conclusions which he drew were, that the anterior fasciculi presided over the sensibility, and the flexion movements of the trunk and extremities, while the posterior presided over the movements of extension. Even Majendie, to whom the second seat of honor is due, as a physiologist of the nervous system, and along with him Desmoulins, in their *Anatomie des Syst. Nerv.* have not assigned totally exclusive functions to the two sets of nerves in question. Their own words are—“Si l'on galvanise l'une apres l'autre, une racine dorsale, et une racine abdominale, qui ne communique plus avec la moelle, on obtient a la verite des contractions par chaque racine. Mais les contractions par les racines anterieures sont en general plus fortes, et plus completes, que par les racines posterieures. Les racines posterieures pincees, tirees, piquees causent de la douleur, mais une douleur bien moindre, que celle qui resulte de l'irritation de la partie correspondante de la moelle. Alors aussi les muscles correspondans aux nerfs, dont on irrite une racine, se contractent; mais se contractions sont encore moindres que dans le cas de l'irritation meme de la moelle. La section d'un faisceau de racines dorsales cause une secousse de tout le membre correspondant. Les resultats sont inverses en operant sur les racines abdominales; leurs figures, leurs pincemens, produisent des contractions plus fortes et convulsives, tandis que les signes de douleur sont presque nuls. L'isolement des deux proprietes dans chacun des ordres de racines *n'est donc pas absolu*.” Muller commenced a new set of experiments on rabbits, in order to determine this most interesting question; but he found that the previous operation of opening the vertebral canal was so difficult, and attended with such excessive pain to the animals, as frequently to induce involuntary twitches of all the muscles even when the nerves were not directly irritated, so that he was precluded

from deducing any satisfactory conclusions. Indeed there must always be this strong objection to all trials made on the higher animals; but the happy thought of Muller, to examine the spinal system of the frog, has fully compensated for the uncertainty of these. The vertebral canal of the frog may be opened with very little trouble, and with comparatively trifling pain; the animal is so tenacious of life, that it remains quite lively after the operation, and the peculiar arrangement of the anterior and posterior fasciculi of nerves, further facilitates our investigations; for these continue to be distinct from each other, and easily separable for a considerable distance from their points of origin; the posterior root may therefore be raised on a needle and submitted to experiment, while the anterior one is free from all injury. We shall first mention the effects of simple mechanical, and then those of galvanic irritation on the two sets of nerves.

1. When the posterior root is divided the animal appears to experience '*quelque douleur*;' if the distal or unattached portion be now seized and irritated, there is not the slightest trace of movement in any of the muscles of the trunk or of the extremities. When the anterior or abdominal root is simply touched, convulsive movements of the extremities immediately follow. The same phenomena, only more violent, are observed when this root is cut and irritated.

2. The galvanic experiments were performed at first with a single pair of zinc and copper plates. Upon applying the two plates to cut ends of the anterior roots, the muscles became convulsed; but no such effect was ever produced when they were applied to the posterior roots. This latter position contradicts therefore the assertion of Majendie and Desmoulins; but we must remember that their experiments were performed on mammiferous animals; and in these the two sets of roots are too short to enable us to separate them satisfactorily from each other, and thus to avoid the irritation of one set, while we are experimenting upon the other. Even in the case of the frog, it is necessary, for the sake of accuracy, to isolate the one from the other by means of small glass plates; because the galvanic irritation of the motor nerves is found to take place at the distance of half a line. But in order to insure perfect accuracy, it is better to employ a small voltaic pile; for then we may either apply both poles to the cut end of the nerve, or we may apply one there, and the other to some of the muscles. The following are the results of Muller's experiments in this way.

1. When the two poles are applied to the posterior roots, no convulsive movements follow. 2. When one pole is applied to the posterior nerve, and the other to some muscle at a distance, slight movements of the muscles which are situated in the tract of the galvanic current are observed. 3. When the anterior root is made the subject of these experiments, convulsive movements immediately occur, whether both poles are applied to the nerve or only one, the other being applied to a muscle; and these movements take place not only in the muscles which are situated in the tract of the current, but throughout the whole extremity. 4. The same result, viz. the occurrence of convulsions, is obtained when one pole is applied to the posterior, and the other to the anterior root. We may therefore safely draw the conclusions, that the posterior roots of the spinal nerves never directly and of themselves provoke muscular contraction; that when they seem to do so (as in the second result) it is only from their acting as conductors, just in the same way as any other moist animal substance, of the galvanic current; and lastly that the anterior nerves not only are conductors of the galvanic current, but also are excited thereby to induce muscular movements in the direction of their branches. Now one of these anterior nerves may be deprived of its "*vis motoria*," and yet retain its conducting power: to exhibit this, we need only seize and compress it firmly at a little distance from the cut end; and we shall find that no irritation, either mechanical or galvanic, applied between the point of compression and this end will induce any contractions; but if one of the galvanic poles be applied to the end and another to a distant muscle to which the nerve is distributed, then contractions will immediately follow, just as if there was no intermediate pressure; showing thereby most distinctly that the nerve retains its conducting power.

It has been supposed that galvanism acts as a special and peculiar irritant to the nerves, and in a manner altogether different from mere mechanical injury; but this is not true, for any

foreign body, even not metallic, such, for example, as a quill, when applied to a motor nerve, will provoke muscular contractions. Muller, from multiplied observation, has been led to conclude, 1, that galvanism acts upon the nerves like any other extraneous agent—2, that it is not the proximate cause of muscular contraction; but only that it irritates the nerves, and provokes their “vis motoria,” which is altogether different from a galvanic power—3, that it has not been proved that nerves are better conductors of galvanism than other moist animal substances—4, that galvanism excites movements, only when a muscle or a motor nerve are situated in the tract of its current—5, that there are some nerves which have no moving power, and can never of themselves induce any movements; that these are only passive conductors of galvanism—6, that there are other nerves which induce muscular movements, not only on the application of galvanism, but also of any mechanical irritant—7, that the dorsal or posterior roots of the spinal nerves have no “vis motoria,” but that the anterior have, and that, from these last, all the motor fibres of the conjoined spinal nerves are derived. He once more alludes to the fallacy of believing that the posterior are ever motor nerves, merely because, when one pole is applied to them, and the other to a muscle, certain movements take place.

The next object of his investigation, was to ascertain what effects are produced by irritation of the proximal, or attached ends of the divided anterior and posterior roots. He found that, when a mechanical agent, or when both poles of a galvanic apparatus, were applied to any of these, no muscular movements were ever induced; but that, when one pole was applied to the portions of the roots adhering to the extreme part (*cauda equina*?) of the spinal marrow, and the other to some anterior part of the body, as, for example, the head, the muscles of the trunk and extremities were thrown into convulsions. In one experiment, he divided all the anterior and posterior roots as high as the cervical portion of the marrow, and then gently lifted out the spinal cord from its canal, and laid it upon a small glass plate; upon applying both poles to its sacral extremity, there were movements in all the parts which had been left connected with the marrow, viz. the neck and anterior extremities. If this position be confirmed, it would show, that the spinal cord is not to be considered as only the “ensemble” of the nerves which issue from it; for we have seen that the portions of the roots which may be left adhering to the extreme parts of the marrow, do not, upon any irritation, induce muscular movements, but that the marrow itself, if irritated, does.

A few cursory remarks on some of the cerebral nerves are appended to the preceding valuable memoir. Muller agrees with Mayo and others, that the portio dura is not solely and exclusively a motor nerve—when irritated, the animal seems to experience pain. The infra-orbital nerve is one of mere sensation—it has no “vis motoria.” With regard to the nerves of the tongue, Muller is led, by his experiments, to state that the lingual, or ninth cerebral nerve, when irritated or galvanized, provokes violent convulsions of the member; that the gustatory, or third division of the trigeminus, excites none of these phenomena, either by mechanical or galvanic agency, except, indeed, when one pole is applied to the nerve and another to the tongue; but, as we have explained before, this sign is quite fallacious, the nerve serving only as a conductor. The glossopharyngeal nerve, on the application of both poles, excites convulsions in the pharynx. These experiments accord with those of Desmoulins and Majendie.

When the lingual nerve was cut, the animal (a cat) seemed to suffer pain; and hence Muller believes that this nerve, although chiefly a motor, is also, in some degree, a sensitive nerve, in the same manner as he supposes the portio dura and par vagum to be. But his experiments here appear to us far from satisfactory.—*Medico-Chir. Review.*

CHRONIC ICTERUS.

Three out of seven cases recently admitted into the wards, died. In two of these cases, the ductus communis choledochus, was found completely closed by biliary calculi; and in the remaining one, the liver presented extensive tuberculous deposit.

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER.

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 9, 1834.

No. 31.

LITHOTRITY.

M. Leroy D'Etiolles communicated the results of fifteen patients on whom he had performed the operation of crushing the stone by percussion and pressure. Complete and very speedy success was obtained in fourteen of these cases; a success infinitely greater than that of M. Civiale at the Hopital Necker, where, during two years, only 27 cures in 43 cases have been effected. The great superiority of the hammering and crushing lithotritic instruments over those which act by successive perforations is thus incontrovertible; and the testimony of M. L. is the more valuable, seeing that he himself contributed not a little to improve the original operation by means of these last.—*Academy of Sciences.*

CALCULOUS AFFECTIONS.

The conclusion which M. Civiale has deduced from his researches, embracing 1881 cases observed in different localities, are the following. 1st. The number of children affected with calculous disorders is greater than is usually supposed. Out of the 1881 cases, 1126 occurred in patients under 14 years of age. 2. The number of patients who have calculi in the urethra, is also much more considerable than is generally stated. 3. In many situations the difficulty of procuring good surgical assistance, and the dread of undergoing the cutting operation induce many to conceal their malady; and thus not a few die without the presence of a calculus having been detected. 4. The mortality, after lithotomy, is greater than we are taught by surgical writers to believe; thus, out of 1644 operations there were 1276 cures, and 234 deaths. Now, if we recollect, that nearly two-thirds of the patients operated upon were children, in whom the chances of success are at least two-fold, we are forced to the conclusion, that the data furnished by most modern authors are extremely inaccurate.

In fine, says M. Civiale, (when alluding to the success which some surgeons have boasted to have obtained in their practice), experience has proved that the operation of lithotomy may be performed, in a considerable number of cases, without the sacrifice of one life; while, in other cases and under other circumstances, almost every patient has died.

The following statistics, relating to calculous diseases, are given by M. Civiale.

In Nice and its neighborhood, embracing a population of 32,000 inhabitants, there occurred only five cases in the space of ten years. Two were in children, and three in adults—three cured, one died, and one had incurable fistula remaining.

In Geneva and its territory, with a population of 200,000 inhabitants, 20 cases occurred in

seven years; 10 of these were in children, 7 in adults, and 3 in old men. Out of 17 operations, 12 were successful, and 5 fatal.

In Malta and the adjacent islands, having a population of 180,000, only 4 cases occurred—the operation was performed 3 times, and was successful in 2.

In Malaga, with a population of 60,000 inhabitants, only 6 cases occurred. The operation of lithotomy ~~was~~ performed in all these, and appears to have been singularly unfortunate, for ~~6 died~~, and the other five had fistulæ remaining.

In Naples, out of 308 cases of calculus admitted into the hospitals, and operated upon, 261 were cured, and 47 died; 129 of these cases occurred in children, 148 in adults and old men.

In the Lombardo-Venetian territory, embracing a population of 60,000 inhabitants, we have the details of 30 calculous cases, 4 of which occurred in women, and 23 in male children, and 3 in adults. The lateral operation, after the method of Dubois, was performed in all, and there was only one death, and one case of remaining fistula.

In Venice itself, the number of calculous cases, during a space of 10 years, admitted into the provincial hospital, amounts to 68: 4 of these were in females—out of the remaining 64, 44 were in children, 19 in adults, and 5 in old men. The operation was performed 63 times, either with Hawkins' gorget, or with Frere Come's lithotome cache; 19 of the patients died, and 44 were cured.

From the province of Brescia, having a population of 329,000 inhabitants, 175 cases of calculus are detailed—147 of these were in children, and 28 in adults. The operation of lithotomy was performed 172 times; in 108 of the cases by the lateral method—in 45, by the recto-vesical—in 4, by the Celsian—in 10 by uretrotomy, and in one case by the high, or supra-pubal incision.

In Milan and its environs, with a population of 538,173 inhabitants, 127 cases occurred in 10 years—91 were cured, and 36 died.

At Vienna, the surgical school has admitted, in the course of ten years, 70 cases of calculus. In 63 the operation was performed, and was successful in 48.

STATISTICS—MORTALITY.

M. Moreau de Jonnes, stated to the Academy some interesting results of his inquiries. It appears that the difference in the mortality of different countries is much greater than the difference in the number of births—the maximum of the former exceeding the minimum nearly three-fold [22, 59], whereas the maximum of reproduction is not higher than double the minimum. The mortality in the Roman states, in the old Venetian territories, in Greece and Turkey amounts to one in 30,—in the Low Countries, in France and in Prussia, 1 in 39—in Switzerland, Austria, Spain and Portugal, 1 in 40—in Russia and Poland, 1 in 44—in Germany, Denmark and Sweden, 1 in 45—in Norway, 1 in 48—in Ireland, 1 in 53—in England, 1 in 58—and in Scotland 1 in 59. The two leading causes which influence the population of a country, are its climate, and the degree of its civilization. A cold climate is certainly more favorable to life than a warm one; and if we examine the rate of mortality in countries within the Torrid Zone, it is much higher than in one of more temperature; thus in Batavia, it amounts to 1 in 26—in Trinidad, 1 in 27—in Martinique, 1 in 28—at Bombay, 1 in 20—at Havana, 1 in 33. Heberden rated the mortality in the island of Madeira, at 1 in 50. To illustrate the beneficial effects of civilization, the following details are very interesting. In Sweden, from the year 1754 to 1763, the mortality was 1 in 34;—from 1820 to 1825, it was only 1 in 45. In Great Britain, from 1787 to 1789, it was 1 in 43. In France, in 1776, it was 1 in 25 1-2.

The medium of mortality throughout Europe was calculated many years ago at 1 in 36.

QUARANTINE ESTABLISHMENTS.

That indefatigable anti-contagionist, Dr. Chervin, engaged the attention of the Academy with a learned refutation of the reasonings of M. Segur-Dupeyron, the Secretary of the

Council of Health, in favor of continuing the present quarantine regulations. The first position of M. D. is, that the countries of Europe, which are known to be most frequently in contact with pestilential diseases, are those, where the doctrine of contagion numbers most partizans. M. Chervin disputes this statement; it is especially inapplicable to America; for at New Orleans, one of the places, which above almost every other, has suffered from the yellow fever, quarantines have been abolished since the year 1825. Even in Spain, where liberty of discussion is prevented, the quarantine enactments are less severe than at our own Marseilles:—The administration of France is decidedly more “contagionist” than that of Spain, and has been the chief cause of retarding those improvements, which the sanitary system of Europe so much demands. England and Holland would have most certainly made the experiment of a greater toleration, had France not mischievously thrown obstacles in their way. The very expense of supporting a large quarantine establishment is immense; the goods too are often much damaged; vessels are destroyed by being obliged to keep in bad anchorages, and sailors often refuse to go in ships, when exposed to the annoyance of imprisonment for 30, or 60 days. The commerce of France has sustained great injury from the strict quarantines imposed, while that of other nations relieved from such vexatious hindrances has proportionally prospered. In England, vessels coming from any part of America are admitted; with us, however, they are not; and the Egyptian and Levantine trade is much less fettered in the one country than in the other. M. Chervin calculates that one twelfth of the French shipping is constantly locked up in quarantine.

PERICARDITIS INDUCED BY THE PRESENCE OF A NEEDLE IN THE RIGHT VENTRICLE OF THE HEART.

Dr. Renaudin and M. Boujet, of the Hospital Beaujon, communicated the particulars of this very curious case. A man, aged 63, had come from the country to Paris, with the view of settling some of his affairs. It was soon discovered that he labored under suicidal mania; he wrote a letter, that he was to die in five or six days; and he kept his bed, without taking any nourishment, excepting a little colored water. One night he fastened a cord round his neck, and when he was thus found in the morning, he swore that some savages had tried to strangle him.

On being taken to the Hospital Beaujon, he complained of an asthma and oppression at the chest. Percussion elicited a duller sound than natural, at the right anterior part of the chest, and the respiratory murmur was found to be wanting there. The respirations were 27 in the minute, the pulse 129, full and hard. He could lie on either side; for a few days he found relief from the means which were employed; but upon the 5th day, after his admission, the dyspnœa and oppression increased exceedingly, and while attempting to speak, he suddenly fell back and died.

Dissection.—The pericardium was distended with two pints of fluid; the bag was much thickened by inflammation, and its inner surface granulated, and lined with layers of albumen. The heart, at its apex, had contracted an adhesion to it. On cutting open the right ventricle, a needle, three inches at least long, was found fairly imbedded within its walls; its direction was from before backwards, and from above downwards; and it appeared to have penetrated into the cavity of the ventricle. Probably it had been introduced, through one of the intercostal spaces; but no trace of any cicatrix, however small, could be found; how long it had been there, there were no means of discovering; the monomania had existed for several weeks. Perhaps this state of mind was the cause why the patient did not complain of any uneasiness or pain in the part.

CANCER OF THE HEART AND OF THE KIDNEYS.

A washerwoman, aged 65, was admitted into the Hospital Beaujon, in a state of great debility and emaciation. On the left side of the abdomen, and just below the edge of the ribs, there was a hard, irregular and painful tumor, which was supposed to arise from an enlarged

spleen. Her health had been failing for two years, with loss of appetite and sleep, and tendency to diarrhœa. There was no disturbance of the circulation, or of the urinary secretion; at least, if there was any, it must have been inconsiderable, as it did not arrest the attention, either of the patient or of her physician. She was relieved by soothing applications, and by frequent doses of opium, and thus lingered out a tortured existence (for the pain was excruciating) for three months in the hospital.

Dissection.—In the right ventricle of the heart, a carcinomatous tumor, as big as a walnut, was found. Its surface was irregular, with numerous warty excrescences, like those we see in syphilis. The spleen was not diseased in structure, but much shriveled in size; the left kidney was greatly enlarged, and presented the true cancerous degeneration throughout its substance. Two small carcinomatous tumors were found in the right kidney and in the uterus.

THE ADVANTAGES OF TURNING THE FŒTUS BY THE HEAD RATHER THAN BY THE FEET.

Up to the end of the 16th century, the only mode of turning ever practised was by bringing down the head first; and we find this conduct recommended, not only in such cases as are admitted at the present day to require artificial delivery, but even in common pelvic and feet presentations. Soon after the above-mentioned date, turning by the feet was first proposed, but it was not until the commencement of the 18th century that the practice was generally followed. One of the professors of the School of Strasburg resisted this innovation, strongly maintaining the superiority of the old regime; and his advice was approved of by many of the German practitioners. To justify this preference, it was asserted that when the head presented first, the compression caused by the os uteri is not sufficient to injure the encephalic contents, and moreover, the communicant circulation between mother and child remains unobstructed; whereas in presentations of the lower extremities, the thoracic and abdominal viscera are exposed to a dangerous compression, and the fluids are driven back upon the head, thus causing frequently a fatal cerebral congestion. In confirmation of the truth of this statement, we are told that only one child in twenty delivered by the head is still-born; whereas, the proportion is one to five in feet presentations. In conclusion, it is alleged that whenever the fœtus is movable within the uterus, it is quite as easy to effect the turning by the head as by the feet.

M. Dubois dissented from the above arguments. He contended that the described dangers of any compression on the abdomen and thorax were most unnecessarily exaggerated; and instanced two cases wherein the shoulder presented along with the head, and yet the children were delivered without any contusion of the thoracic and of the abdominal viscera.

The dread too of the retropulsion of the blood upon the head was an offspring of fancy rather than a result of experience; he did not agree with them in their belief that the os uteri exercised such a constrictive pressure as was alleged; the parts of the fœtus which have already escaped from the uterus are subjected to a less degree of pressure than those still contained within its cavity; and hence we can readily explain why the blood should be driven to and accumulated in the former. Do we not observe that when an arm is born first, the member frequently becomes much swollen? now this swelling arises from the pressure being less upon the arm than upon the rest of the body. True it may be, that in many children who die after feet presentation, visceral congestions are not unfrequently discovered; but the cause of these is the compression of the umbilical cord, and not the retropulsion of the fluids which M. Flament believed to take place.

The compression of the cord is a necessary danger attending all births by the feet, and indeed it constitutes a very serious objection to the process of turning: the child is very often asphyxiated, and in such a case we find upon dissection the same phenomena which are observed after drowning or hanging, viz: an apoplectic plethora within the head, great congestion in the veins of the cerebrum and other viscera.

The calculations which have been adduced to prove the greater safety of turning by the

head than by the feet, are not strictly correct, as will appear from the following statement of M. Dubois.

In all such calculations, to ascertain the comparative mortality of the different modes of delivery, we must be careful to exclude from our tables all cases wherein the child has died before actual accouchment has commenced; or wherein the labor has been premature and the child may be therefore not well capable of independent life. Now the new tables which have been recently formed at the Maternité of Paris, on these principles, show, "that from the 1st of June 1829, to the 1st of June 1833, 10724 children have been born at the hospital; of these, 10262 were born by the head, 391 by the lower extremity, 59 by the trunk, and—30 by the face; of the 10262, 9867 were at the full period of gestation, and 395 were not. The 9867 may be reduced to 9837, because, in 30 of the cases the fœtus was known to be dead before delivery commenced, and the 395 premature cases may be reduced to 278; for in 83 the fœtus had been dead for some time, and in 34 it was too imperfectly developed for the maintenance of independent life.

Of the 9837 deliveries by the head, at the full time, 191 were born dead; the proportion is therefore one in 51 or 52; and of the 278 prematurely born, 48 were born dead, or one in every 5 or 6. Of the 391 deliveries by the lower extremity, 238 were at the full term, and 153 before the term; from the first number we must deduct 7, who were dead before labor began; and out of the remaining 231, 21 were born dead; a proportion of one to eleven. From the 153 we must deduct 63, in which the child had evidently died during pregnancy, and 30, in which it was too young for independent life; and out of the remaining 60, 10 were born dead; or one in six. From these calculations it appears among other results, that the fœtus at the full period can endure the "*fatigues of accouchement*" with much greater safety than when born at an earlier period, whether they are delivered by the head or not. M. Dubois draws our attention to the important difference in the results by the previous deduction of all the cases in which the fœtus either had been dead for some time before labor, or was incapable of life when delivered. Thus had we enumerated these cases among the mortality in the 10262 head presentations, we should have had 386 deaths, or one in 25; whereas we have fixed it above at one in 51: and in the 391 feet presentations the deaths would have amounted to 134, or nearly one in two, instead of one in eleven. With regard to the comparative advantages in practice of turning by the head, M. D. admits that in some cases the operation is not only quite possible, [Mad. Lachapelle was wrong in denying this,] but also abundantly easy. He has himself performed it twice when the shoulders presented; but the operation is much more difficult than that of turning by the feet, and should the liquor annii have copiously escaped, or should the uterus be firmly contracted around the child, the manœuvre is almost impracticable. In the 59 trunk presentations, two were delivered by means of turning by the head; in a third case the expulsion of a putrid fœtus took place by the shoulder; and in the remaining 56 the child was brought down by the feet. Out of the whole number 59, in 25 only did the child survive; but M. Dubois is of opinion that a still smaller number would have been saved had turning by the head been tried in all.

CHOLERA AT NEW ORLEANS.

It appears from an able memoir of Dr. Halphen of New Orleans, that the cholera first broke out during the existence of a most severe epidemic of yellow fever. In the month of September of last year, a good many cases of yellow fever were observed; but it was not until the middle of the following month, that it was declared epidemic in the place; and about the same time, the new pestilence added its horrors. The character of the former, was as formidable as it had ever been known on any former year; and all the cases required general bleeding at the beginning, and the strictest antiphlogistic regimen. It seems that this depleting treatment favored the development of the cholera. In the practice of Dr. H. eight or ten cases of cholera occurred in patients actually laboring under yellow fever; but in proportion as the one (the cholera) prevailed, the other became less intense. On the 12th of No-

vember, a cold northerly wind sprung up, and in three days the pestilence had entirely vanished.

Dr. H. gives it as his opinion that the cholera was brought to New Orleans from St. Louis, by the Constitution steam-boat. The remedy which Dr. H. found by far the most efficacious, was a combination of sulphate of quinine with 'thridace;' three grains of the former and one grain of the latter, every fifteen or twenty minutes, until re-action was produced. Enemas with the same were also given.

PERITONEAL EXTRA-UTERINE PREGNANCY.

The body of a woman, 78 years of age, was brought to the anatomical theatre of Geneva, and on dissection the following curious anomaly was found.

A tumor of a hard cartilaginous consistence, occupied the right side of the pelvic cavity; it adhered intimately to the bladder, uterus, and vagina, but did not communicate with any of them. On cutting it open, a mummified fœtus, of about three months, was discovered within. The most minute examination could not ascertain how the fœtus had originally been detached, whether from the ovary or fallopian tube; or whether it had made its escape by a rent from the uterus or vagina. The woman was the mother of three children, and had enjoyed good health, ultimately sinking under the effects of old age. The fœtus had been lodging in its cyst for upwards of thirty years; when taken out, it was found to be encrusted over with a layer of phosphate of lime. M. Cloquet, who read the memoir of M. Majore of Geneva, regarded the present case as an example of true peritoneal pregnancy, the existence of which in the human subject has been so often contested. M. M. Breschet and Beclard, after having carefully examined the reports of all the cases of supposed peritoneal pregnancy on record, were still obliged to refuse their credit to the authenticity of such an occurrence.*

M. Cloquet, in reply, alluded to the admitted occurrence of this anomaly in some of the lower animals; for example, in cats, in which he had seen fœtuses developed within encysted sacs, and these sacs adhering to the peritoneum by means of blood-vessels. M. Velpeau supported these latter views, and adduced two observations from his own experience,—the fœtuses, about three months advanced, had no connexion whatever with the ovary, fallopian, or uterus.

M. Capuron and M. Esquirol relate two other analogous cases. In that detailed by the latter, the woman was 68 years of age. M. Moreau stated that he had once examined a rabbit, in whose abdomen were several fœtuses floating about and quite detached. It is to be remembered that in all such cases the fœtuses are never complete, seldom having reached beyond the early stages of gestation. In the possibility of actual peritoneal pregnancy M. Lisfrance also coincided. The testimony of Professor Lallemand of Montpellier is favourable to the same side of the question; he has mentioned in his inaugural thesis the case of a woman, who being affrighted during the act of coition, was immediately seized with a violent pain on one side of the belly. Eight months afterwards she died of extra-uterine gestation; and when opened, the fœtus was found in the situation of her sufferings.

M. Breschet alleged however that in Lallemand's case the fœtus was found between the ovary and Fallopian tube, and that therefore it ought not to be admitted as one of genuine abdominal pregnancy.

HYDATID TUMORS OF THE WRIST.

Encysted tumors, containing a number of small hydatidic bodies, of the size of pear seeds, form occasionally on the palmar aspect of the wrist, under the aponeurosis, which exists at this part, and among the sheaths of the flexor tendons. Their nature is not unfrequently mistaken, and troublesome consequences have occurred from an injudicious treatment.

*The explanation which they gave was, that during the fœtal life of the patient herself the germ of a twin child had become included within the body, just in the same way as had happened in the case of the young Bissieu, reported by Dupuytren, and recorded in the bulletin of the faculty.

Case 1. A man-servant, aged 30, having one of these tumors, was admitted into the hospital. It had existed for two years, and extended from about two inches above to the same distance below the wrist joint. It was somewhat flattened on its surface, and felt like those large sub-pericranial wens, which used to be called 'talpæ;' only that instead of being uniform it swelled out at the two ends, and was girt tight about the middle, by the palmar ligament—thus resembling a double-pouched wallet. The skin at the part was not at all affected in color. The hand could not be bent upon the forearm, and the movements of the fingers upon the hand were also impeded. Severe lancinating pains extended along the whole palmar extent of the forearm, and deprived the patient of sleep; they were not however increased by pressure upon the tumor; but when this was done, a sort of crepitation was perceptible, just as when we pat a leather pouch, containing some very small leaden bullets; besides, the movement of the small bodies from one end to the other could be felt in this way, and either end might be made to swell out by compression upon the other. Experience having shown that any other mode of treatment but free incision of these tumors, or amputation of the forearm, (as some have recommended in all cases,) is not only useless but possibly very dangerous, it was determined in the present instance to cut fairly through the sac, empty its contents, and induce a suppurative granulation from its interior. The operation was performed thus: while an assistant pressed firmly upon the palmar ligament, so as to prevent the discharge of the fluid from the whole cyst, a transverse incision was made through the integuments and walls of one of its lobules, care being taken to avoid wounding the annular ligament of the wrist. An innumerable quantity of small, white, hard, oval, or rounded bodies, immediately escaped; the other lobule was then cut open, and a similar discharge flowed out. The sac was thus entirely emptied. A small portion of its walls was pulled out of the wounds, and snipped off with scissors;—it was found to be firm and fibrous, like wet parchment. A piece of lint was pushed into each orifice, so as to prevent them healing outwardly, and a slight dressing laid over it. The strictest antiphlogistic treatment was enforced, the patient being bled, leech-ed, &c., and the arm kept suspended, and constantly wet with a cooling wash.

On the third day, the wounds were examined; their edges were so puffy and swollen, that the pieces of lint had been forced out, and the openings were almost closed; the hand and forearm were red and inflamed, and so exquisitely tender, that the slightest motion caused great pain. The lips of the wound were gently separated, and pressure made, so as to squeeze out any contained matter; the dossils of lint were then replaced, and the member enveloped in emollient fomentations.

Every unfavorable symptom gradually abated, granulations sprung up from the bottom, and on the fifteenth day the cure was assured. Great care was taken each day to empty the pouch of any pus which might be confined. Within the month the wounds were completely healed. The use of the local baths was ordered to be continued, for the purpose of relaxing the joint and facilitating its movements.

Case 2. A man, aged 29, had been annoyed with one of these tumors for about a twelve-month; it was very similar to that in the preceding case. The operation has not yet been performed [month of July].

In regard to the frequency of these encysted tumors, there seems to be much discrepancy of opinion. Some surgeons tell us that they have never with them; and yet Dupuytren has treated upwards of fifty cases in the last twenty-five years.

The inference is but too apparent, viz. their nature has not been properly understood. Authors have confounded them, sometimes with white swellings, and at other times with hydrarthroses of the wrist, or steatomatous, or lipomatous tumors, treating them with resolvent applications, &c. &c. The diagnosis will be much facilitated by attending to the two following signs.

1. They invariably are seated on the palmar side of the wrist, under the carpal ligament, and extend upwards and downwards, forming a bilobulated swelling, like a double pouched wallet.

2. They crepitate and communicate a feeling, as if little bodies passed and repassed, when

pressure is made upon them. Sometimes indeed this symptom is rather obscure ; but when it can be felt distinctly, it may be considered as truly and exclusively characteristic of these tumors.

As to the nature of these hydatidic bodies which are found in the sac, observers are not agreed ; Dupuytren regards them as organized and living beings ; Dumeril and other naturalists as productions which are altogether inorganic ; some German physiologists attribute them to the agency of galvanic currents ; Professor Petruni of Naples thinks they are detached aneurisms or varices of the lymphatic vessels ; Dr. Rognetta inclines to the same opinion, and alludes to the occurrence of similar hydatidic tumors developed between the choroid coat and the retina. It is worthy of notice, that in the subject of the second case, mentioned above, there was a co-existent disease of the lymphatic vessels of the whole arm.

CLUB-FOOT IN NEW-BORN CHILDREN.

A child, 15 days old, was brought to M. Dupuytren's consultation ; there was an introversion of the left foot ; the right one being quite natural. A bent splint, well padded, was applied to the outer side of the leg, and a narrow roller then passed from the one to the other, so as to give the requisite inclination outwards. The cure is thus completed usually in four or six weeks.

It is a curious fact, that when a child is affected with this deformity in one foot only, the corresponding limb is generally shorter and worse-fed than the other ; and that as soon as the foot recovers its proper position, the irregularity of the limb begins to be, and is soon rectified. Such is Dupuytren's experience.

ENCYSTED TUMORS ON THE HEAD.

A woman 30 years of age, presented a number of these tumors, scattered on different parts of the scalp ; they varied in size, from that of a hen's egg, to that of a filbert, the largest ones being situated behind and on the sides. They caused great inconvenience, when the patient rested her head on the pillow. The integuments over some were inflamed and painful.

With regard to the method of extirpating these tumors, Dupuytren prefers that which has been called "enucleation ;" an incision is made through the integuments—the cyst is then worked about, and detached from its surrounding connexions with a small fine spatula, passed round between these and the cyst ; the tumor is thus quickly and neatly unkernelled, and started out from its socket. It is altogether a much more adroit, less tedious, less painful, and less dangerous method than that of dissecting out the sac with the scalpel. When a tumor is very large, M. Dupuytren advises that a circular portion of the integuments be detached from the summit, and the operation then finished, as we have mentioned with the spatula.

The reporter adds that he has occasionally observed, that the development of wens upon the head is somehow connected with pregnancy.

DILATATION OF THE ŒSOPHAGUS.

This accident may be either congenital or acquired ; it may affect the whole, or only one, or several parts of the tube. Vicq. D'Azyr found in the body of a man a distinct and well-formed crop, (as we see in birds,) without any other signs of diseased change ; but in most cases the dilatation is owing either to a hernia of the mucous membrane through the muscular coat, or to a mechanical distention from a foreign body lodging in the passage, and in short, to any cause which offers an impediment to swallowing. When the food is arrested in some part of the gullet, it undergoes a partial change ; and such cases are usually attended with a great offensiveness of the breath, along with dysphagia, and not unfrequently with a power of rumination.

THE
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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 16, 1834.

No. 32.

A LECTURE DELIVERED AT JEFFERSON MEDICAL COLLEGE, PHILA., JAN. 8, 1834.

BY J. REVERE, M.D.

Professor of the Theory and Practice of Physic in Jefferson Medical College.

We sometime ago informed our readers that it was our intention to institute a comparison betwixt the character of the medical instruction furnished to the students of medicine in this country and Great Britain, with the view of proving whether our transatlantic professors are really so superior to their cotemporaries of the United States, as some travelers have inculcated. The only correct method, as we have before stated, of testing the fact is, to publish some of the Lectures delivered by the teachers of corresponding branches in the two countries; and we have already, as our subscribers are aware, published an Introductory Lecture delivered by Dr. Revere, the distinguished professor of the theory and practice of physic in JEFFERSON MEDICAL COLLEGE, PHILADELPHIA, and a valedictory lecture delivered by the not less distinguished Dr. ELLIOTSON, professor of the same departments in the University of London. In the present number we give a lecture of Dr. Revere on Gastritis, and shall, in a subsequent one, furnish an interesting lecture delivered by Dr. Elliotson.

The lecture on Gastritis was delivered by Dr. Revere, on the 8th of last January, in his regular course, without any reference to publication, a committee of his class having however waited on him to request his permission to publish it, he was, on their solicitations induced to do so.

As the lecture has already been published, it may be asked why do we republish this *particular* lecture in preference to some other one delivered by the same professor? Our answer is, not that we consider this discourse intrinsically superior to many others which we might have selected from the course delivered by Dr. Revere, but simply because it, in an able manner, exposes the absurdity of the system of Broussais, and because, although published, the circulation has been confined to a few of the friends of the students of Jefferson Medical College. We have said it exposes the "absurdities of the doctrines of Broussais," but, we feel that the epithet "absurd" is far too mild a term to apply to this system. It is the most ruinous, the most dangerous heresy that has ever been introduced into medicine; all its premises are false, and its practical precepts if depended on, *when inflammation does actually exist*, are murderous. We know this is strong language, it may be said to be harsh, but we feel that it is not one whit stronger or harsher than the circumstances of the case merit. When we inform

our readers that within the last three days we have had two subjects brought into our dissecting rooms, the one an athletic man of about 40 years of age, and the other a very stout handsome girl of twenty, who have evidently been sacrificed to the pernicious, the murderous system of treatment, inculcated by the teachers of the doctrines of Broussais, they will we believe allow that we have sufficient cause to feel warmly, and that we are fully justified in employing our humble abilities in attempting to disabuse the minds of those young physicians who, without much thought, have been induced to become its votaries.

Both of the subjects referred to, died of pleurisy. The man furnished one of the best examples we have ever examined of acute inflammation of the pleura, and the symptoms as we have on inquiry learned, were as marked as the morbid appearances. Yet will it be believed that although this man had the attendance of a regularly educated physician, general bloodletting had never been employed. A few cupping glasses were applied over the epigastrium, and we suppose a little gum water was given and this constituted the entire treatment!!! Is there a physician of any experience who will not admit there are seen diseases more certainly to be remedied than pleurisy, and that bloodletting, *general bloodletting* may be considered almost as a specific. Yet in the case of these two unfortunate individuals, perfectly healthy, in every other respect in so far as the careful examination of the bodies could detect with the exception of acute inflammation of the pleura, the lancet had never been used. A few cupping glasses were applied over the region of the stomach of the one, and even this very moderate depletion was not practised on the other. These are not solitary cases. Every week during the session of lectures, others of a similar character were brought to the dissecting rooms.

We can with confidence appeal to the observation of the one hundred and forty-four gentlemen who attended the dissecting rooms of Jefferson Medical College last session, whether we exaggerate when we state that above a dozen subjects were brought to the rooms during the season whose dissections proved the cause of death to have been acute inflammation of some of the viscera, on whom no vestige of the mark of a lancet was to be discovered. These acute inflammations were healed *a la Broussais*, by the application of a few cups or a few leeches, and the subjects of them, as might have been expected, become *subjects* for dissection.

To do the disciples of Broussais justice, we cannot accuse them of not bleeding. Having the vision of inflamed mucous membrane constantly before them, they *always* bleed few of their patients, who are permitted to go to their graves without having their epigastrium marked by the scarificator. Indeed a boy amongst the students called these marks Dr. —'s (a staunch supporter of the doctrines of Broussais,) "coat of arms," and this was the name they currently bore in the dissecting rooms. What we object to is, that in cases of acute inflammation they do not bleed enough, and in cases where there is no inflammation they bleed too much.

We know that the intelligent members of the profession, those gentlemen who have studied their profession philosophically, who have been guided by facts and not by "*fancies*" are as much opposed to Broussais as ourselves, and that it is only amongst the imaginative and the inexperienced, those who prefer speculations to facts, that the admirers of Broussais are to be found. To these gentlemen we address ourselves, we beseech them as they value the lives of their fellow-citizens to examine the merits of the system of Broussais for themselves. Let them throw aside the "leading strings" which have been furnished them by this or the other favorite teacher, and let their judgment be influenced only by the observation of disease. If they will only consent to do so for one twelve months, we feel no fear for the result. They will assuredly repudiate the pernicious doctrines of Broussais, they will become safe and useful members of the profession, and from a candid examination of their own experience, convinced of the destructive tendency of the practice which is predicated on the "*PHYSIOLOGICAL SYSTEM*," they will, like M. Barros, become its most strenuous and determined opponents.

LECTURE.

GENTLEMEN,—Having completed the consideration of the Phlegmasiæ of the Thoracic Organs, I propose next to consider those of the abdominal viscera. I shall begin with the inflammation of the mucous membrane of the alimentary canal.

There is no part of the animal economy, the functions of which are more important than these; none more worthy your especial study; or a knowledge of which is more indispensable to sound and consistent pathological views.

What is the nature of that process by which animal and vegetable substances are so changed that, from being dead, they become re-animated; from being foreign and so dissimilar to our bodies, they become assimilated to and constituent parts of them? What is the nature of that mysterious change by which dead vegetable matter becomes converted into living animal matter? Is there any thing in the structure and arrangement of those organs in which this wonderful process takes place, that will assist us in forming any just notions on this subject? Do chemical or mechanical philosophy present to us any clue, or throw any light on this extraordinary function? These are questions which must have occurred in every age, and to almost every individual, where the progress of civilization and habits of reflection have led to observation on the changes which are incessantly taking place within us and around us.

The digestive organs, the apparatus for effecting this object, exercise, by their sympathies and from their functions, a vast influence in the living body, both in health and disease. They are, more or less, implicated in every morbid condition, and it is to them that our medicinal agents are, for the most part, directly addressed. The sympathetic influences of these organs are scarcely less extensive or strongly marked, than even those of the brain or the heart. No considerable local or general disturbance can take place in the other organs, without its effect being, more or less, felt by the stomach; nor can this organ itself become diseased without disturbing the functions of the other organs. Distressing news, or other mental agitation, will often put an immediate stop to the process of digestion, or cause diarrhœa. Hence, we find, in almost every morbid condition of the body, loss of appetite, thirst, nausea or vomiting; disgust at certain sorts of food, or a morbid desire for unwholesome food, or perhaps, substances altogether unsuitable for the purpose of digestion. In a word, there are few diseases that ever occur without producing a marked modification in the functions of the digestive apparatus, especially the stomach. On the other hand every derangement in these organs promptly and manifestly influence the functions of every other. A very slight derangement of the functions of the stomach immediately propagates its influence to the other organs. An indigestible article of food; excessive quantity of it; those agents which are denominated stimuli; poisons; blows upon the stomach, or other accidental injuries of this organ; a sudden reduction of its temperature by cold drinks or ice, especially if the body be heated, or its general powers unusually prostrated; all such produce a more or less sudden and violent influence upon the functions of the other organs. In consequence of impressions on the stomach, the intellectual manifestations are either depressed or exalted to a preternatural degree, and all the other functions of the brain and nervous system in some degree deranged. It is the same with the muscular system, the central organ of the circulation, and the respiratory organs, though the latter, perhaps, indicate their sympathy less than the rest. On the other hand, alcohol or opium will induce delirium, and impair the power of controlling the voluntary muscles, when applied to the stomach in small quantities. From these extensive sympathies it is then reasonable to expect that inflammation, or other lesion, of the different tissues of the body, should propagate their effects to the stomach, and that inflammation of the stomach on the other hand should by its sympathy, cause derangements of the other organs. Reason, I say, would lead us to anticipate this, and experience actually confirms the suggestions of reason. These observations are nearly as old as the records of medicine; they are so obvious, so generally known, and universally admitted, that it may appear trite, even to refer to them. I am however well aware that their truth has been long known and acknowledged. But my object in making these remarks, at present, is for the purpose of placing before your

minds, as they stand before my own, the new opinions which have been broached by M. Broussais respecting the universality and paramount pathological importance of inflammation of the mucous membrane lining the alimentary canal.

This gentleman claims to have made a most important discovery, connected with this department of Pathology, and to have deduced from it maxims of treatment, in a great majority of diseases, of the highest practical importance. He claims to have discovered that all preceding, and, in fact, all other medical inquirers (except himself and his disciples), have not only misunderstood the primary causes and proper treatment, as they state, of at least sixty in the hundred cases of disease that occur,—but that all other Pathologists have misunderstood the relations of symptoms, and the proper import of medical language. He claims to have discovered that sixty in one hundred of all the acute maladies which occur to mankind, arise primarily from inflammation of the mucous membrane of the alimentary canal, and that this is the principle circumstance to be taken into the account, in the treatment of these diseases. Nor is M. Broussais more modest or moderate in his other pretensions; he calls his doctrines, *par excellence*, the Physiological doctrines, and, possessing a particular facility in making new names, he has invented an epithet which he and his disciples appear to think exceedingly clever and emphatic, and which they apply, with great freedom and volubility, to those who do not subscribe to the new doctrine. The epithet to which I allude, and which he and his disciples appear to think exceedingly happy and pertinent, is *ontology*. As a specimen of the pretensions and tone of this gentleman, I shall quote his definition of an *ontologist*: “Our uncertainty will never cease until we have a good history of the phlegmasiæ of the abdomen,” (which he has kindly furnished in this book;) “but we shall not be indebted for this to those obscure and purely speculative logicians, who follow, in the treatment of human infirmities, the chimeras of their imagination, rather than the real disorders which are presented to their senses.” (Manifestly including in the category all the rest of the profession.) “These,” he remarks, “I have designated by the word *ontologists*.”

In the preparatory investigations made by me for this course of lectures, gentlemen, I endeavored to examine, with all the candor and fairness in my power, the pretensions of M. Broussais. I endeavored to lay aside any feelings of prejudice, to which we are naturally inclined, against opinions or views which clash with those we have long cherished. I endeavored to lay aside every unfavorable impression as to the true merits of his doctrines, which are almost unavoidably produced by the offensive coarseness with which he has assailed the opinions of others, and which, even his friends must admit, have been advanced with an air of dogmatism and arrogance, which even new and demonstrable truth would not have justified. Still, I have kept in mind, that, though bad manners and bad taste are always offensive, yet they are sometimes found connected with good sense and good intentions; I have recollected that the only legitimate object of science is truth, in the advancement of which all mankind are equally interested; and that we should therefore not allow ourselves to be driven aside from its pursuit by individual peculiarities or personal considerations. It was in a spirit of fairness and candor, as these different topics came under my examination, which involved the doctrines claimed as peculiar by M. Broussais, that I examined these opinions, and compared them with facts resting on the highest authorities in the profession, and my own knowledge and experience. The result of this investigation I shall allude to, as occasion may offer in the course of these lectures. Had I consulted my own judgment alone, in forming an opinion on this subject; had I no other object in view than to ascertain for my own satisfaction the originality and soundness of the opinions advanced by M. Broussais, I should have saved myself much labor, and you some time. A very short examination of his writings may satisfy any well informed and experienced physician, that the writings of M. Broussais are much more characterized by pretension and assumption, than by their originality, or the justness of their views.

I say that, for my own satisfaction, a very limited examination of the work of M. Broussais and his followers would have been sufficient; many works have been published of much

greater merit, which only claim a passing notice in these lectures. But in the actual relation in which I stand to you, and the aspect of originality and importance which it has been attempted, in another institution, to attach to these writings, and their practical bearing, give to them a degree of consideration that, intrinsically, they by no means appear to me to deserve. At the present time, the Professor of Theoretical Medicine in the largest medical school in this country, is a professed admirer and disciple of M. Broussais; and some of the other learned Professors in that most respectable institution, though more measured in acknowledging themselves his followers, are yet known to be the admirers, if not the open propagators of his opinions. That institution, too, having heretofore had, in a great degree, under its control, the medical press of the United States, has been, and is making every effort to disseminate these opinions and this practice. The practical maxims of the Broussaisan doctrines particularly extend to the diseases of this country, and are in direct opposition to those that have prevailed among the most eminent practitioners of medicine in the United States, especially since the time of Dr. Rush. It is not my intention to enter, at this time, upon a systematic examination of all the doctrines of M. Broussais, but only so far as they are connected with gastritis. As we proceed, I shall allude to them in speaking of the different diseases, as we consider them, each in their turn.

Inflammation of the mucous membrane of the stomach has been long recognized by nosologists as an idiopathic or distinct disease—1. As an apthous affection, commencing in the mouth, especially in infants, and extending down the œsophagus, along the mucous membrane, successively affecting this membrane in the stomach and bowels. 2. As a result of indigestible food, or an improper diet, or poisonous substances taken into the stomach, and sometimes symptomatic of other diseases. 3. Spontaneous inflammation arising from change of temperature, or other cause, sometimes terminating in ulceration. It has also long been observed that habitual drunkards are exposed to a diarrhœa which it is quite impossible to control by medicine; it has been long since discovered, that on examination of the bodies of these patients, after death, small ulcers are frequently found affecting the mucous membrane of the large intestine.

Besides these obvious inflammations, and their consequences, it has long been noticed that one of the symptoms most commonly observed in many acute diseases, is a sensibility in the epigastric region, which varies in degree in different individuals. It is scarcely observable in some instances, while in others the sensibility is very great. In many acute diseases this symptom has been noticed and recorded from the earliest records of science. It has been particularly noticed in many febrile affections, especially the autumnal fevers of warm climates; intermittent, remittent, and billious fevers; and especially yellow fever; but it has been noticed and described as one of the characteristic symptoms of these diseases. It has been always considered in the same light as several other concomitant symptoms, equally uniformly occurring, and equally varying in degree. It has been regarded like headache, redness of the conjunctiva, and quickness of the pulse, each of which indicates a certain exaltation and derangement of function in the brain, the eye, or the heart, and in some instances no doubt rise to inflammation, so as to constitute predominant symptoms of the case, but in a great majority of cases by no means constituting or necessarily implying inflammation of those organs, or indicating them as the primary seats of the disease. In the same way sensibility in the epigastric region, pain and loss of appetite, when occurring under similar circumstances, have been viewed in a similar way; as symptoms dependant on exaltation of function, and in some instances, in the progress of the case, rising to inflammation.

All these circumstances have been long familiarly known in the profession, and appreciated and explained in the manner I have described; but inflammation of the mucous membrane of the alimentary canal has only been recognized as a distinct and separate disease, under the three forms just described. But even in these forms, it is by no means a very common disease. I find there has been, for example, not more than one case of gastritis in the hundred in the patients of the Dispensary attached to this Institution during the past year. I feel myself strongly fortified in this remark, from finding that Dr. Abercrombie, in his late work on the

Diseases of the Stomach and Bowels, remarks, that he had found gastritis an uncommon disease.

But M. Broussais claims to have discovered that inflammation of the mucous membrane of the alimentary canal is the primary seat and cause of almost every human malady. This, he and his disciples call *gastrite*, or *gastro-enterite*; they boldly aver that sixty in one hundred of the acute diseases to which the human subject is liable, have gastrite, or gastro-enterite as the primary symptom, and lead us to apprehend, from their observations and maxims of treatment, its existence in the remaining forty. This disease, so simple in its nature, in the opinion of M. Broussais, requires an equally simple treatment. His universal remedy is gum-water, or acidulous drinks and abstinence; in the more urgent cases, the use of a few leeches. It reminds us of the philosophical simplicity which characterized the practice of the immortal Dr. Sangrado. According to "this learned Theban," all disease consisted in a lentor of the blood, for which nothing more was required than bleeding and warm water. This is the predominant feature of Broussaisism; it constitutes its highest, and almost sole pretension to originality, it is the burden of all his doctrines, and the end of all his practical precepts. The claim is distinctly made, and it will now be proper for us to examine its validity, and how far it is founded in truth and nature. Should it appear, on a candid examination of the facts and reasons alleged by M. Broussais, that his opinion is as true as it is novel, then shall we and all the profession be indebted to him. Then, gentlemen, will it become quite unnecessary for you to leave your homes in pursuit of medical knowledge; disease will be reduced to a unit, and the *Materia Medica* become a dead letter.

Formerly, it was considered the highest praise in the profession faithfully to copy and describe nature as she is observed actually to exist. What is it constitutes the great praise of Hippocrates and Aretæus, and Sydenham and Laennec? Is it not that those great masters of our profession have accurately drawn from *nature*, not from their own imaginations? Many of their descriptions we perceive to be as just at the present day as they were at the moment they were written. Who that has read Aretæus' description of consumption, or compared with the original the *facies Hippocratica*, can doubt of the fidelity or accuracy of the portraiture.

But one of the greatest difficulties we have in grappling this subject, is to fix in our minds a clear and distinct idea of what are the symptoms that characterise gastritis, as understood by M. Broussais. The manner of treating this subject, assumed by him and his followers, renders this particularly embarrassing. The greatest difficulty in combating the Broussaisian doctrine of gastro-enterite, arises from the indefinite description given by them of the assemblage of symptoms during life, and the appearances after death, which they consider as constituting the characters of this disease. If they had defined gastrite, as other nosologists have done, to consist in any given assemblage of symptoms, for example, in pain, heat and morbid sensibility in the epigastric region; anorexia, or other morbid state of the appetite, with nausea and vomiting; with increased heat and frequency of the pulse; if they alleged that, after death, the accuracy of the diagnosis was sustained by the morbid appearances of the mucous membrane of the stomach; if they alleged that, in such a majority of cases as ought to remove any reasonable ground of doubt, this group of symptoms during life was found attended by such morbid changes of structure in the stomach after death, as indicated a mortal inflammation to have previously existed there, and which no other morbid appearance could satisfactorily explain. I say, if M. Broussais had proceeded clearly to define gastro-enterite, in this, or any other way, there would be no difficulty in testing the accuracy of the new doctrine. But this is too simple and obvious a mode of proceeding for M. Broussais. This, in his mind, constitutes an *ontologist*. This view is not sufficiently *scientific* for him; any one could understand this. It is true that Hippocrates and Sydenham, and Pringle, and Pinel, and Laennec, and other illustrious men who have done so much for the promotion of medical science, have thought this the only true method of improving it. It is acknowledged that this is the spirit of the inductive philosophy, by which it has been the aim of all the illustrious men who have flourished in the profession for the last century, to govern medical reasonings. But

if you will look into M. Broussais' writings on this subject, or those of his followers, you will find such a habit of walking on stilts, such mysterious modes of expression, such splitting of atoms, that a plain man finds it impossible to understand them. There is such a looseness in their description of what constitutes *gastrite* or *gastro-enterite*, that it is quite impossible to find, with any degree of precision, what are the symptoms during life, or the appearances after death, that they consider characteristic of this disease.

The description of gastritis, given by M. Broussais in the second volume of his *Chronic Phlegmasiæ*, comprises an assemblage of symptoms which I must take leave to doubt if any man ever saw combined in any patient. So far as my own observation has gone, instead of finding sixty in one hundred acute diseases marked by such symptoms, I can truly declare, that I do not believe I have ever seen a solitary case. The description to which I refer, is that given of gastritis by M. Broussais, in the second volume of the *Phlegmasiæ*, from page 146 to 153 of the late American translation of that book. I repeat, that I have never seen the assemblage of symptoms there described as characterizing either acute or chronic gastrite, in any patient that has ever fallen under my observation. Some of these symptoms are found in most diseases, but to find them grouped in the manner there described, must be a very rare occurrence; at least I have never met with it.

Nor is there more precision in the characteristics of the *gastrite* or *gastro-enterite* of M. Broussais, as deduced from appearances after death. On examining the bodies of those who die from *gastro-enterite*, as described by these gentlemen themselves, we naturally expect to see strong confirmation of the soundness of their opinions in the appearance of the mucous membrane of the alimentary canal. He (M. Broussais) admits in his description, (p. 147,) that there is not always pain in the epigastrium; and even when it does exist, it is not aggravated by the touch, unless when forcibly pressed; nor are nausea, vomiting, or even loss of appetite, according to his admission, always present in gastrite. If, then, the existence of inflammation in an organ is neither indicated by pain, manifest morbid sensibility on pressure or motion, or disordered function, what other evidence can we have that inflammation does exist? Thus they describe, for example, as *gastrite*, an assemblage of symptoms which other nosologists have called jaundice, and which is generally believed to consist, essentially, in a derangement of the secretory and excretory processes of the liver. This M. Broussais asserts is not primarily an affection of the liver, but an inflammation of the mucous membrane of the stomach. If you inquire how he is led to infer this, seeing this person has neither sensation of pain, morbid sensibility, nor loss of functions of the stomach, a thing by no means uncommon in such a case, the Broussaisan replies—true, the sensations do not indicate the existence of inflammation in this organ; but then our sensations are deceitful, and cannot always be relied upon. But should the patient die, *then* you will perceive the soundness of my assertion. Meanwhile, perhaps, the patient does die; and we examine the stomach to ascertain the correctness of the prognostic. If, on doing so, there is any redness or ulceration of the stomach, then he exclaims, *ecce signum!* while he triumphantly points to these red spots as confirmatory of the soundness of his doctrines, and the accuracy of his opinions. But if there be no appreciable variation from the usual appearance of the organ, which in many if not most instances, is the case, then you would suppose that, in this dilemma, the advocates of the new doctrine would be confounded, and confess that, for once, they had been mistaken. But this is by no means the case. No, he is prepared with a reply to this apparent demonstration of the fallacy of the new doctrine. True, he says, there is no redness now; but it is because it has disappeared during the article of death. You are aware that inflamed surfaces often lose their redness after death; and it has been so in this case. But could you have looked into that person's stomach during life, you would certainly have found it inflamed! This, gentlemen, is the great doctrine of M. Broussais, and these are the reasons by which it is supported!!—I am almost ashamed, gentlemen, to occupy your time with such puerilities; so unworthy the spirit of the inductive philosophy and the enlightened views which have characterized the progress of our profession in the nineteenth century. It is a spirit much more fitting to the

Aristotelian doctrines of the schools, or the reasonings of judicial astrology, than the enlightened views of the present age. It implies a much stronger desire to make an ingenious syllogism, than to discover the truth. When the argument of Broussaisism is thus fairly, but nakedly stated, with the trifling and silly subterfuge on which the whole doctrine rests, I am conscious that it must be contemplated by you, as it is by me, with feelings that it is perhaps best not to express. It is scarcely worth while to pretend gravely to combat such a train of reasoning: its texture is so flimsy, and its sophistry so apparent, that he who runs may read. I need say to you, that, by the same mode of reasoning, inflammation of any other texture, as well as the mucous membrane of the alimentary canal, may be alleged to be the cause of every disease. If there are no series of symptoms which characterize the disease during life, and no change or appreciable modification of structure discoverable after death, what proof have we that any such disease existed?

M. Broussais has been compared, by his admirers, to Bichat, and Galileo, and Harvey—men whose precocious intellect had anticipated their age. Like them, it is asserted, his transcendent discoveries are so much in advance of his time, that they are not appreciated. It has been alleged, by way of reproach, that his writings are not read, or, if read, are not understood. Indeed, gentlemen, there are but few “who can read the hand writing upon the wall.” This privilege is reserved to the initiated; to the happy few who can perceive what others can scarcely imagine; whose gifted senses, surpassing even the vision of the somnambulists, can measure with almost mathematical exactness the actions of the ultimate atoms which compose the living body; or who speak, at least, of “*molecular actions*” as familiarly and confidently as natural philosophers describe the motions of the heavenly bodies.

I freely acknowledge that I think the charge is just. I think there are few who read the writings of M. Broussais or his followers, and that the number is still smaller who pretend even to understand what they read. I confess, for my own part, though it is certainly not for want of examination, that there is much about these writings altogether beyond my comprehension. But to a plain man, the subject presents itself in a different aspect; to him it is inexplicable on more simple and obvious principles. On finding, among persons of respectable understanding and acquirements, that these works are but little read and still less understood, he is very apt to suspect that they are not read because they cannot be understood, and that they cannot be understood because they are unintelligible.

By far the most dangerous feature in the doctrine of M. Broussais, is the feeble and inefficient practice to which it leads. Admitting the Broussaisan maxim to govern their practice, there are sixty cases in one hundred of all the acute diseases they meet, that they leave pretty much to pursue their own course, with little attempt to check or control them. General blood-letting they acknowledge to be usually inefficacious in gastro-enterite, and there are few articles of the materia medica that they dare to give, lest, as they allege, they increase the irritation of the phlogosed membrane. Emetics of all kinds they regard with horror, and attribute to their use every pernicious effect; almost all the cathartics are regarded with equal apprehension; so that they are reduced to abstinence, gum water, or a few leeches to the epigastrium, and occasionally an enema as their most effective remedies in combating six cases out of every ten acute diseases they meet with. In the kind of practice in which most of you will be engaged, even the most effective part of this feeble treatment will be unavailable—I allude to the *leeches*. In the country, as you are aware, it will be quite out of the question generally to obtain them, and, even in the cities, their expense will necessarily confine their use to a very limited portion of the community. In the more temperate and long cultivated regions of Europe, acute diseases are generally less severe in their symptoms, and longer in their duration, and the danger of such feeble practice is therefore less apparent; But I imagine there are few American physicians, who have seen much practice, especially in the southern parts of the United States, who would feel themselves warranted in trusting a severe case of our autumnal diseases to such inefficient practice. I suspect, also, there are few American physicians who have perused the cases of gastro-enterite detailed by M. Broussais, without a conviction

that, under a more energetic system of treatment, even in that climate, the results might have been more fortunate.

The absurd extremes to which the doctrine of gastro-enterite has been carried in France, is evidently producing a re-action, even among his own followers. Among the other signs of the times to which we may refer as indicative of this, is a work published by Dr. Barras, entitled, "*Traite sur les Gastralgies et les Enteralgies.*" Dr. Barras, a Broussaist himself, was first led to doubt, from his own case, whether every pain in the epigastrium was to be considered as a gastritis. His own case is too long to repeat here, though an extremely interesting one. It will be sufficient to observe, that with all the prejudices of the Broussaisan school, he supposed himself affected with gastritis. After having for a long time endured extreme sufferings, and practised the usual routine of cupping and leeching to the epigastrium, with extreme abstinence, all of which were attended with a manifest increase of his sufferings, he was induced to doubt the correctness of his views and the propriety of the practice. Under an opposite treatment, he soon recovered his health. He published an account of his case, and as he was a person of considerable professional eminence, it appears it excited a good deal of attention, and naturally threw a number of similar cases under his observation. He has given us the results to which we at present allude. Its object is to show, that great morbid sensibility and pain may exist in the region of the stomach, without inflammation or other lesion of structure; that this morbid condition is often a neuralgic affection of the stomach; and that it is exasperated, instead of being relieved, by the rigorous regimen, and long continued depletion, practiced under the idea that the disease is inflammatory.

M. Barras gives an amusing picture of the medical pupils of M. Broussais:—"They are in constant dread of gastritis; if they feel the slightest uneasiness in the epigastrium, or symptom of indigestion, they examine their tongues before a glass, or show them to one another; if they perceive, or fancy they perceive, any redness on the sides or tip, they are at once convinced, and they fly immediately to leeches, gum water and acid slops. After a time, this debilitating process engenders a morbid sensibility of the stomach, which renders them incapable of taking solid food without uneasiness, when they again have recourse to leeches and anti-phlogistics. By this plan the stomach is enfeebled, the nervous system deranged, and the individual often rendered miserable!"

A number of very striking cases are related by M. Barras of the pernicious consequences of this indiscriminate practice of the school of M. Broussais. I can only give two or three.

The second case is that of a man 29 years of age, who had been for a long time troubled by indigestion. Being attacked with one of these fits of indigestion, but without fever or vomiting, and his appetite being still tolerably good, he applied to an *eleve* of the Physiological School for advice. Ninety-six leeches were applied at different times to the epigastrium, and the patient put on a course of gum water, lavements, and starvation. After fifty-five days of this treatment, the attending practitioner was taken ill, and M. Barras was called in to take his place. The following is his description of the condition of the state of the patient:—"He appeared like a person on the point of dying from hunger! Emaciation had arrived at the last degree of marasmus, and the debility was so great that the patient could not raise himself from the bed; his tongue was moist throughout, white in the middle, red at the sides and extremity; face pale; disgust for drink; vomiting for some days past; had some desire for solid food; the pulse was weak; skin cold; urine watery and copious; stools scanty; nothing particular about the epigastrium, except that the spine could be plainly felt through the abdominal parietes. The *morale* was nearly as much prostrated as the *physique* in this wretched patient. Though M. Barras feared some serious organic lesion, and considered the case almost desperate, he commenced the treatment very cautiously with a more nutritious diet, and endeavored to cheer and encourage the patient with hopes of recovery. Beginning with some tender boiled animal food, in very small quantity, and a little Brussels biscuit, he gradually increased, until at the end of twelve days he could eat a mutton chop. The patient suffered at first some pain and inconvenience in the stomach and bowels, but proceeding very

cautiously, the appetite, strength, and flesh returned, so that he was enabled to return to his usual occupation at the end of six weeks.

I shall mention one other analagous case related by M. Barras.

“A physician, forty years of age, had long been subject to occasional pains in the stomach, which were relieved by a little rhubarb. In one of these paroxysms, he applied ice to the epigastrium and was relieved. In consequence, he became a convert to the new doctrine. Being again attacked, he put himself upon a course of leeches and gum-water, which afforded temporary relief. But the pain having again come on after exposure to wet and cold, he considered himself as now suffering under *une veritable gastro-enterite*, and accordingly treated it *secundem artem*. One hundred and twenty leeches were applied to the epigastrium, and the usual anti-phlogistic diet and regimen systematically adopted. But, instead of relief, there was an aggravation of his malady. In this state he came to Paris and put himself under the care of *un medicin physiologiste*, who of course confirmed the diagnostic of the patient, and continued the treatment, with the exception of the leeches, which prudently were not pushed further. The patient grew worse. The sensibility of the stomach became so great, that the least particle of food produced great pain, nausea, and uneasiness. The tongue became red, the stomach flatulent, and the bowels obstinately constipated; the spirits were depressed, and the flesh wasted away. *The nourishment was therefore further diminished*. The patient was now dying with hunger—yet dared not to eat! In a fit of desperation he took a bit of chicken, which, to his astonishment, produced no uneasiness. He returned into the country, adopted a light diet of animal food with great benefit. The morbid sensibility of the stomach diminished; the digestion, strength, and spirits improved, and, having accidentally met with Dr. Barras's Memoir, he became satisfied that his was a case of *gastralgie*—not *gastritis*—and by a suitable diet and regimen, recovered his health in the course of a couple of months.”

I do not think it necessary to relate here other illustrations, to which I might refer, of the pernicious tendencies of these doctrines in the more chronic forms of disease. When we come to investigate the characters of our autumnal diseases, and especially the proximate cause of fever, I shall then find it necessary again to revert to this subject. Then I shall have occasion to show you the fatal tendencies of these opinions. I shall then also have occasion to inquire into the originality of the opinions of M. Broussais. To those who have looked but superficially into the literature of the profession, there appears something new and imposing in these opinions. But when we examine a little further into the subject, I think you will agree with me, that the writings of M. Broussais do not possess even the paltry claim of novelty, but that these opinions had been advanced by Ploucquet, Clutterbuck, and Dr. Beddoes, long before the time of M. Broussais; and that, after having been deliberately examined and weighed by the profession, they had been pronounced wanting.

In conclusion, gentlemen, I would remark, that hollow and feeble as these doctrines inherently are, they have only acquired importance from the circumstances under which they have been brought forward.

I am happy to say, gentlemen, that this Institution, though, I believe all will admit, not slow in recommending to your attention all the absolute improvements in the science, has been the first to oppose itself to this, which I cannot but deem at once an imbecile and dangerous innovation.

I am well aware, however, that thus far this heresy has been chiefly confined to a very limited portion of the younger members of the profession; while in every part of the country, with very few exceptions, those whose abilities, professional acquirements and experience, give weight to their opinions, are decidedly opposed to it. In speaking to you with freedom, as I have done, on this subject, I trust my motives will not be misunderstood. However strongly I may have expressed my disapprobation of these doctrines, I trust you will do me the justice to believe, that it has not been my intention to make any disrespectful personal allusions to those whose opinions differ from my own on this subject. But, placed in the situation I hold in this institution, I have thought it my duty thus freely to discuss these

doctrines, and to give you my views respecting them ; it is for you to judge how far they are sound and just.

SYPHILIS AND SYPHILOID DISEASES.

Case 1.—A young female was admitted, for several chronic ulcers upon both legs ; the two largest, each about three inches across, were situated on the outer side of the right limb. They had been, for the space of two years, treated as scrofulous sores, and almost every antistrumous medicine tried without avail. They were indolent and reddish—the granulations were large and atonic—the edges were thin and separated, or as it were, unglued, and the base or centre of the sores prominent above the rest of the surface. The patient was decidedly of a scrofulous habit. Dupuytren suspected that there was a venereal taint, but the young lady vowed she was a maid. However, upon examination, sufficient evidence was furnished that such was not the fact ; and his suspicions being confirmed by other circumstances, the antisymphilitic treatment of the Hotel Dieu was ordered. [A pill, composed of 1-6th of a grain of corrosive sublimate, 1-4 of a grain of extract of opium, and two grains of extract of guiac, to be taken thrice a day, and also the decoction of sarsaparilla, with a spoonful or two of sudorific syrup ; complete abstinence from wine, spirits and coffee. This treatment is to be continued, in most cases, for two months.]

In twelve days a very visible amendment had taken place, and in twenty more the greater number of the sores were healed.

Case 2.—A woman, aged 40, had for eighteen months suffered under ophthalmia in both eyes ; every now and then it became worse, and she was obliged to have the eyes constantly bound up, as the admission of the light was quite intolerable. The conjunctiva was found highly vascular, but not much swollen, and there was no discharge ; the inner circle of the iris was somewhat injected, and the pupil half closed ; the bottom of the eye could not be properly seen. Purgatives, blisters, setons, &c. had been repeatedly tried without success.

The great oculo-cerebral distress which this patient suffered, being much greater than one might expect from the visible local malady, it was supposed probable that the retina might be in a state of inflammation, and if so, the character of the inflammation was specific. The patient resolutely denied having ever incurred the risk of syphilitic infection ; but, in spite of this, the mercurial treatment was decided upon, and if no improvement took place in a fortnight, it was to be laid aside. But before the expiry of that period, the ophthalmia had greatly diminished, so that she could bear the admission of light—in another fortnight she was cured. The patient afterwards confessed, that she once had syphilis in her youth.

Case 3.—A woman, aged 40, presented an ulcer, situated below the right mamma. It was from three to four inches across, and in some respects resembled a cancerous sore. It was deep, excavated, and filthy—its surface was covered with a putrid eschar or slough—the discharge was most fetid—the edges separated all round, and the adjacent integuments were œdematus. The patient suffered lancinating pains in the sore ; the axillary glands, however, were not affected. The disease had commenced, eleven months ago, with a tumor, which subsequently broke ; she had been treated for cancer. The antisymphilitic treatment was adopted ; the chloride of lime wash was applied to the sore, in order to detach the adhering gangrenous detritus.

In three weeks the sloughs were all removed, and the aspect of the sore in every respect so much improved, that under simple treatment it soon healed up.

Case 4.—A countrywoman from Picardy, aged 36, had labored for ten months under complete amaurosis of both eyes. She was four months pregnant ; but this circumstance was not confessed at the time of admission ; the disease had supervened upon an obstinate ophthalmia.

On examination, the eyes were found to be quite clear, the pupils insensible to the light, the size of the eyes natural; she complained of severe frontal cephalalgia, but of no pain in the affected organs. The patient was of an exceedingly nervous irritable constitution—the complexion had an earthy hue, and the breath was very fetid. The general functions seemed to be moderately sound. When questioned as to the possibility of venereal infection, she at once denied it. This being the case, and there being no sufficient grounds to infer a rational suspicion, the usual treatment of blistering, purging, vomiting, &c. was employed for some time, but with no benefit.

Again she was examined upon the subject of her previous ailments, and now she confessed having had syphilis, eleven months before. The antiphlogistic treatment was prescribed forthwith, and in ten days the sight of the left eye was completely recovered, and that of the right one much improved. The mercury began to act violently on the intestinal tube, and the consequence of this was, that abortion ensued. In the sequel, the eye-affection was effectually cured.

Case 5.—A woman 30 years of age, the mother of one child, and pregnant five months with a second, was admitted into the Hotel Dieu for an enormous puffy swelling of the whole lower lip; it was red, painful, ulcerated and cracked: there were also three sores, each of the size of a forty-sous piece, on the left cheek, and others, which were smaller, close to the corresponding commissure of the lips. The patient did not exhibit any of the constitutional symptoms of syphilis. She had been six weeks at the Hospital St. Louis, and treated there with repeated leechings, poultices, and a strict antiphlogistic regimen, but quite unsuccessfully. M. Dupuytren, considering the long standing of the disease, its obstinate resistance to all antiphlogistic remedies, and the filthy aspect of the sores, concluded that it was dependent upon a venereal taint, and ordered the antisiphilitic treatment. No decided amendment took place, till the twelfth day; when cicatrization commenced, and quickly advanced to a perfect cure. The topical application was calomel sprinkled upon the sores, and a mild dressing over it. The course of pregnancy was not at all interfered with by the mercurial treatment.

Remarks.—Dr. Cayol, one of the able editors of the *Revue Medicale*, appends a few observations to the preceding report. He states, that although mercury has long been justly considered as a touch-stone to discover the syphilitic infection in obscure and doubtful cases, it is by no means either absolute or exclusive in this respect. It is not absolute, for experience has taught us that not only do some venereal cases resist its operation, but they are most unequivocally exasperated by it, under whatever form it be administered; neither is it exclusive, for many other diseases besides syphilis are speedily and effectually cured by its use.

Without alluding to tumors and chronic swellings, to many old and indolent ulcers, and a host of other maladies, we shall at present mention its very striking efficacy in some cases of abdominal effusion supervening upon peritonitis or enteritis. If the mercurial ointment be freely rubbed in upon the abdomen we have seen immense sero-purulent collections (eight to ten pints for example) dissipated in a few days.

The object of these remarks is to point out the incorrectness of the opinion adduced by the reporter of the preceding clinique, that when a disease which has resisted other modes of treatment, yields to the use of mercury, we should therefore regard it as depending upon a venereal taint.

The medical man who permits his mind to entertain such an idea will run the hazard of frequently compromising the honor and dignity of the profession by rash and groundless suspicions of the moral conduct of his patients.

[In the truth of the observations of Dr. Cayol we entirely concur. Several of the cases reported were in our opinion not syphiloid diseases. They are however very interesting. The formula is one we dislike. According to our experience the corrosive sublimate is the very worst form in which mercury can be prescribed; and the one of all others most likely to be followed by those diseases which sometimes are produced from the abuse of mercury.

EDITOR.]

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
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Prof. of Anat. in Jefferson Med. Col., Philada.
ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 23, 1834.

No. 33.

ABSENCE OF THE ANUS IN A YOUNG WOMAN TWENTY-TWO YEARS OF AGE.

WE have translated, from the 9th October number of the Medical and Surgical Journal of Paris, (Hebdom.) the following account of this singular case, as recorded by M. Ricord.

Having, says M. Ricord, been consulted by a young girl, aged 22 years, who wished to be examined, because her lover accused her of having communicated blennorrhagia to him; which she declared to be impossible, as she had no intercourse with any but himself. She added "*that she was not formed like other women,*" and desired him to yield her a little more attention. Being frequently consulted by women on pretended deformity, which consisted often only of a greater length of the nymphæ, or of the carunculæ myrtiformes, he attached at first little importance to what she said on this subject. The external parts of the genital organs exhibited no disease, nor any thing remarkable. He applied the speculum. The introduction of the instrument was very easy. The parts which pressed on its extremity were perfectly healthy, and presented nothing abnormal. In the meantime the depth to which it had arrived without encountering the neck of the uterus, began to surprise him, when he discovered a ball of fecal matter which simulated the touch of the os uteri and grape seeds, and which he took to be excrescences.

Recurring then to the idea of malformation which she hinted at, he examined the organs of generation with much care, and found them in the following condition: The great and little lips, the clitoris and its prepuce were of the usual size and very well formed; the meatus urinarius was in its usual place, and presented no irregularity. The posterior commissure of the vulva and the fourchette were also in the normal state; but between the posterior commissure of the great lips and the point of the os coccyx there was no anus. The place that ought to be occupied by this opening, presented a brown spot about the size of a franc piece, irregularly radiated and deprived of hair, whilst the mons veneris and the vulva were shaded with an abundant pilous tissue. The vulvar ring was situated in the lowest portion of the vulva, and was deprived of its carunculæ myrtiformes. It presented eccentric ridges, formed by the mucous membrane; it enjoyed a certain force of contraction much less than that of the anal ring, but greater than the ordinary constructor of the os externum. Beyond this vulvar ring, the finger could be introduced without pain into a canal, which, from its position and its use, merits the name of *recto-vaginal*.

The speculum, which produced no inconvenience to this patient, led him to discover that

the mucous membrane of the vagina was destitute of the usual transverse ridges, and being pressed in its whole length it met not the least resistance in its course; nor was there any line of demarcation which could indicate a change of tissue. It was only arrested by fecal matter. A finger placed in this canal, while a female sound was introduced into the urethra and the bladder, nothing could be felt between them but a thickness of tissue, like that which separates the utero vaginal passage. The touch exercised on all points, and the speculum, introduced its entire length, was incapable of discovering any vestige of the womb.

Interrogating this woman in relation to defecation, menstruation, and coition, the following is the result:

The fæces are passed by the vulva. Her will has entire control over them; the gas often escapes involuntarily. When the fecal matter arrives at the vulvar ring, there is a necessity of going to stool; but when she has satisfied this want, the finger, introduced as far as it can go, meets with nothing. She, however, takes the precaution of injection and washing herself, which in her case is always highly proper if not necessary.

Her courses have never appeared under any form; there never has been any blood seen either in the fæces or in the urine.

Living three years with the same man, the latter never discovered the malformation. The first sexual intercourse which she had was not at all painful; there was no hymen to rupture; and with her, as already observed, the contraction of the vulvar ring was not very strong. She had some venereal appetite; but though she experienced the pleasures of sexual intercourse, she said that it seemed to her, from the accounts which she had received from other women, that her desires were less lively, and her enjoyment not so great as among others of the same sex. She is tall, slender, well made; her form and physiognomy are those of the female sex. Her breasts are well developed, and have never experienced, since adult age, any rapid change in their volume; and her voice is as sweet as that of any woman.

Before these observations are closed, of which the practical and moral consequences are easily deduced, it ought to be added that three days have elapsed since her first visit; and though she was not then sick, she is now affected with urethral blennorrhagia, without having any disease either of the vulva or recto-vaginal canal.*

OBSERVATIONS ON THE VENEREAL DISEASE;

Being an Extract from the Annual Report of Diseases treated in the Hospital of the 72d Regiment, at the Cape of Good Hope, in 1832.

BY THOMAS CLARKE, ESQ.

[Communicated by Sir James M'Grigor, Bart., with the Author's permission.]

It is impossible to come to the consideration of this disease, without being impressed with a sense of its great importance in a military point of view.

When we take into consideration the universal prevalence of venereal disease, and look at the number of soldiers who are admitted into hospital on that account, by which the present and ultimate efficiency of the regiment is materially affected, the necessity is forced upon us of using our utmost endeavors to check its prevalence, and also to bestow the most attentive consideration in our power upon the mode of treatment.

We have to consider not only what particular mode of treatment is best adapted to the cure of the primary symptoms of the disease, but also by what means we shall be most successful in preventing the occurrence of those constitutional affections liable to ensue, and by which, in many instances, the constitution of the soldier is prematurely worn out, and the duration of military life shortened.

With regard to the prevalence of the disease, in justice to the municipal authorities it must be said, that no exertion is wanting on their parts to check its propagation, and with consider-

* Since the above was in type, we perceive that the same article has been published in the last number of the Baltimore Medical and Surgical Journal, from the London Lancet.

able success: and with reference to the most beneficial mode of cure, the question resolves itself, in a great measure, into what has been called the mercurial and non-mercurial treatment.

During the four years the 72d regiment has occupied this station, we have had ample opportunity of observing the disease, in almost every form or variety in which it is known to occur; and although the treatment has not been conducted with a view to the production of arguments on either side of the question, yet, perhaps, some useful inferences may be drawn from a concise statement of facts.

For the sake of perspicuity, I think it would be desirable to discard the term syphilis altogether for the present; for, although it has found its way into the return, I would not take upon myself to say, why it should be applied to one sore more than another.

Under the heads, then, of *Ulcus Penis*, and *Syphilis Primitiva*, in the Return, are comprehended all primary venereal sores of every description whatever: these may be arranged into certain species, each possessing a character of its own at some time, but not always retaining the same character throughout.

1st. The superficial ulcer either on the external or internal surface of the prepuce, and which is by far the most tractable of any. This sore is sometimes attended with induration of the surrounding substance, and sometimes not. When occurring on the external surface it is rarely attended with induration, but when on the internal surface, it is very seldom found without it. The ulcer is sometimes found single; occasionally several make their appearance, forming a circular fringe on the edge of the prepuce.

2d. The ulcer on the glans, presenting a variety of appearances, and always attended with excavation, and more or less induration of the edges, it is difficult to heal under all circumstances, and is occasionally found to break out again, even after a lapse of several weeks. This sore generally leaves a well marked cicatrix, and to it have been traced a very large proportion of the cases of constitutional symptoms which have occurred.

3d. There is the phagadenic sloughing ulcer, of which I have observed one case only which can be strictly so designated.

It does not appear to me that any good can result from an attempt to fix upon any one of these primary ulcers in preference to another, the arbitrary term of syphilis. Neither should I be able to say, either from the appearance of the sore, its duration, or its consequences, or any other circumstance attending it, what ought to be called syphilis, and what not. I therefore look upon them all as local ulcers arising from the application of a certain virus, and all liable to be followed by a certain train of constitutional symptoms.

What this virus is, whether it is one, or many poisons, may be a question; whether it is but one and the same poison, variously modified as to its effects, by the constitution and habits of life of the patient: or a variety of poisons, capable of producing distinct diseases, is more than I can say. This much is certain, that the constitutional train of symptoms, arising from primary sores of precisely the same character, is powerfully influenced and modified by the habits of life and constitution of the persons. Is it illogical then to infer that the primary affection may also be subject to this influence?

The treatment of the primary ulcers has been conducted on the principles already alluded to; that is, a certain number of every variety have been treated with, and without, mercury; and these have not been selected for one mode of treatment in preference to another, from any peculiar character or appearance of the sore, or from any idea that one was syphilitic, and another not; but the different modes of treatment have been applied to sores of a precisely similar character, in order that the comparative merits of the mercurial and non-mercurial treatment might be fairly estimated; not only with reference to the object of immediate cure, but also to that of ultimate consequences.

And I may be here permitted to remark, that the result of four years' uninterrupted observation and experience, added to that of former years, is such as to satisfy my mind, that every variety of the primary disease which has fallen under my observation, might have been cured without the use of mercury: and further, it is such as to incline me to reject the employment

of that remedy almost altogether, as being, perhaps, unnecessary in any case, and in many decidedly injurious. I do not mean to assert that cases may not have occurred, which from some cause, perhaps unknown, may have baffled the best directed efforts for their cure: I speak only of my own limited experience.

Of the inefficacy of every mode of treatment, of the constitutional symptoms of the disease in certain habits of body, I have myself more than sufficient experience.

I am ready to admit, and to give to those of a contrary opinion the full benefit of the fact, that there are some, and perhaps many cases, in which mercury will be found to expedite the cure; but this is by no means universally the case; neither do I think any one could take upon himself to say in what particular instance it will hold good.

Seeing, then, the uncertainty of the benefit, it behooves us to bear in mind that we are handling a dangerous weapon: but conceding this point as fully as it can be demanded, when we look at the average number of days requisite for the cure, under both modes of treatment, the difference appears to me very immaterial, and by no means to be put in competition with the single fact of the advantage to the soldier, as well as the service, in being discharged from hospital the moment the sore is healed; fit for duty, and his health unimpaired. If then, in point of time required for the cure, there is no great advantage on either side, is there advantage in any other respect? This gives rise to the question—the all important question indeed—whether constitutional symptoms more frequently ensue upon one mode of treatment than upon another.

I have not instituted any comparative experiments, with a view to determine this question, nor do I think that the results of any such experiments could at all be relied upon; but my own experience authorizes me to say, that constitutional symptoms not only occur less frequently where mercury has not been used (although the difference in this respect may not be worthy of much consideration), but also, when they do occur, they are always of a milder character, of shorter duration, more easily and more effectually removed; and, what is a matter of no small importance, with much less injury to the constitution, than when that medicine has been employed.

It appears that during the year 1829, being the first year on this station, there were admitted into hospital 96 cases of primary ulcers, with and without bubo, and of bubo that had been preceded by ulcers, but which had been healed previous to admission. Of these 96 cases, 39 were treated with, and 57 without mercury. During the same period four cases of constitutional symptoms occurred, in all of which the primary disease had been treated with mercury.

In the second year 104 cases of the same description were admitted; and of these, 40 were treated with mercury, and 64 without it; and constitutional symptoms appeared in six persons, in four of whom the primary disease had been treated with mercury, and in two without it; and in two of those treated with mercury, constitutional symptoms appeared a second time, making together the eight cases entered on the return.

In the third year there were treated 96 cases of the primary disease, 25 with, and 71 without mercury; and amongst the former, three cases of secondary symptoms appeared; and amongst the latter, six. In one of the three cases the symptoms occurred for the third time, and in one of the six cases that had been treated without mercury, they appeared a second time; and in one case (making in all 13 entered on the return) was a relapse from the preceding year, in which the primary disease had been treated with mercury.

During the last year 42 cases have been admitted, 12 of which have been treated with, and 30 without mercury; of the former, two, and of the latter, ten, were followed by secondary symptoms. In one of the two cases in which mercury had been used, the constitutional symptoms recurred a third time; and in one of the ten in which it had not been used, they appeared a second time; besides which there are five cases (making in all twenty entered on the return of this year) relapses from the preceding year, in one of which mercury had been used for the cure of the primary disease, and in the others it had not.

With this explanation the following table will be understood.

Years.	Primary Venereal Disease treated		Total.	Secondary Symptoms after Mercurial Treatment.	Secondary Symptoms after Non-Mercurial Treatment.	Relapses after Mercurial Treatment.	Relapses after Non-Mercurial Treatment.	Total.
	With Mercury.	Without Mercury.						
1829	39	57	96	4	0	1	0	5
1830	40	64	104	4	2	2	0	8
1831	25	71	96	3	6	3	1	13
1832	12	30	42	2	10	6	2	20
Total	116	222	338	13	18	12	3	46

It appears from this table, that while the number of cases of primary disease have been progressively decreasing during the last three years, those of the constitutional disease have been progressively increasing. And further, it may be remarked that, on comparing one year with another, a considerable difference appears in the duration of the primary disease, the average number of days under treatment being, in 1829, 23 days; in 1830, 28 days; in 1831, 24 days; and in 1832, 32 days. This being a general average, without reference to the nature of the sores, or the particular mode of treatment, I am at a loss to account for the circumstance upon any other principle than that of a change in the habits and constitutions of the men. There can be no doubt of the fact, that, by the intemperate habits to which soldiers are far too generally addicted, in this climate, their constitutions are impaired to a lamentable extent in a remarkably short space of time; and these causes, intemperance and climate together, operate not only in rendering the local disease more difficult of cure, but also in predisposing the constitution for the accession of constitutional symptoms, which symptoms in every subsequent year appear in a more aggravated form, are more intractable under treatment, and also more liable to recur; besides which, there are peculiarities of constitution, more particularly where the strumous diathesis exists, in which the symptoms are doubly aggravated. We have every day experience of the mildness of character of the symptoms, and the ease with which they are removed, in men of temperate habits; and also the contrary. I am further satisfied also, that in very many instances, but for the circumstance of a deep debauch, or perhaps a march under a hot sun, the constitutional disease might never have been produced.

A sketch of the cases of constitutional symptoms which have been treated during the last year, will illustrate these remarks.

It may be necessary to premise, that in every case of primary disease the patient is strictly confined to bed until the sore is healed, with constant application of astringent washes, such as the solutions of alum, zinc, liquor plumbi, black or yellow washes, and fomentations and poultices where their use is indicated. The diet is always the least exciting hospital diet, until the sore has made some progress in healing; and a purgative draught is given every second or third day, in the early stage, according to the state of the constitution. When mercury is used, the treatment is not varied, except by its addition.

In the constitutional disease the treatment is as follows, modified according to the degree of intensity of the symptoms:—Venesection, purgatives, antimonials, tepid bath, guaiacum, sarsaparilla; and when mercury is used, it is only in the stage of convalescence, and then in the form of a compound calomel pill. In the ulcerated fauces or tonsils, detergent gargles are

employed, or, what I find to be more efficacious generally, the application of the lunar caustic in substance.

In the first case, the primary disease was an ulcer on the internal surface of the prepuce, circular and superficial, with slight induration of the edges, and healed without mercury in sixteen days. Two years and a half after, he had another ulcer on the prepuce, of nearly the same character, and which healed without mercury in six days; and fourteen months subsequently to the latter, a papular eruption appeared on the skin, which was removed by the use of purgatives, antimonials, and the tepid bath, in six days. This man is of a vigorous constitution and moderate habits.

The second case had contracted the primary disease four times during the two preceding years, all ulcers on the internal surface of the prepuce, the last of them excavated, with elevated edges, and much indurated. They were healed without mercury; and ten months subsequently he appeared with an extensive pustular eruption from head to foot, and a deep sloughing ulcer in the tonsil. The disease was completely removed by the treatment already specified, without mercury; but the period, including convalescence, was protracted to one hundred and five days. The man is as yet of a healthy constitution, though much addicted to habits of intemperance. Nine months have elapsed, and the disease has not re-appeared.

The third case appeared at the hospital with an extensive tubercular eruption on the face, chest, and shoulders, with broad livid blotches on the lower extremities. He had been on detachment, where he had contracted an ulcer on the prepuce, which he had cured by his own means, but, as he stated, without the use of mercury. Within a fortnight from the healing of the sore, the eruption broke out. The disease was removed without the use of mercury, in fifty days, leaving a deep discoloration of the skin. Nine months have elapsed, and the disease has not returned; the health is uniformly good, though the skin has not yet recovered its natural color. Three years and a half previously, he had a primary ulcer, the character of which I had no means of ascertaining, but for the cure of which mercury had been used in a moderate degree, according to his account.

The fourth case was that of a deep sloughing ulcer of the glans, with elevated edges, and great induration. As it showed no disposition to heal under the non-mercurial treatment, which was persevered in for a period of eighteen days, mercury was employed: he was cured under its use, and dismissed from hospital in thirty-seven days.

Twenty-four days afterwards he returned, with the lower extremities covered with large copper-colored blotches. He was put upon a course of antimonials and sarsaparilla, and the disease was apparently removed in forty-four days, though the discoloration of the skin remained.

After a lapse of seven weeks he returned again with a tubercular eruption on the head and face and upper part of the body; the site of the ulcer hard and inflamed; and there was also a considerable degree of constitutional irritation. Antiphlogistic remedies were employed, and a course of antimonials and sarsaparilla recommenced. This treatment was persevered in for the period of eight weeks, when it was presumed that the disease was completely eradicated. However, in the course of three months and a half he returned once more, complaining of pain in his elbows and knees, sore throat and deafness, with a troublesome cough. There was also an extensive white aphthous ulcer on the back of the pharynx; and the whole of the fauces were in a state of inflammation. He is still under treatment; but no mercury has been used subsequently to the cure of the primary disease.

This man's habits were those of extreme-intemperance, being slavishly addicted to tobacco as well as spirits; and he attributes the last attack to exposure to cold in the guard-house, when in a state of intoxication. His constitution is now much impaired.

The next case was one of a small superficial ulcer on the external surface of the prepuce, which was healed without mercury in eleven days. A few days afterwards he returned to hospital with gonorrhœa, without, as he stated, having been exposed to a fresh infection. After a lapse of four months he came to hospital, complaining of headache, and shivering, as if he had caught cold; and on examination a papular eruption was discovered all over the

body. On the febrile symptoms being reduced, the eruption disappeared. No mercury was used.

The next case was one of bubo, which had not been preceded (if his assertion is to be relied on) by either a primary ulcer or gonorrhœa, although he admitted that he had been exposed to the chance of incurring infection. It suppurated, and healed without the use of mercury; and in four months afterwards he returned to hospital with pains in his joints, and an ulcer in his throat. This disease was also removed without the use of mercury, and seven months have elapsed without any return of it.

The remaining cases, five in number, were primary ulcers, all very nearly of the same character, situated on the internal surface of the prepuce, with more or less induration; and the constitutional disease was a papular eruption, with slight febrile excitement. Both primary and secondary symptoms were removed without the use of mercury; and the period under treatment for the latter averaged five and twenty days.

If these cases will warrant any conclusion, it is to my mind in favor of the non-mercurial treatment.

As to "whether all the variety of sores originate from the same virus," I would answer, that I think the same venereal virus is capable of producing sores of various characters; but whether this specific cause is at all times in the same state of virulence, may be a question. I think that it is not; and that it may be varied in its character, and in its influence and effect, by the stage of the disease, and also by the particular state of the general system of the person affected.

It is further my opinion, that the character of the sore produced by the application of this virus, does not by any means depend solely upon any specific difference in its nature, or any particular degree of its concentration; but that, in passing into another system, it becomes subject to a new and different influence, and consequently that the sore to which it there gives rise may exhibit any character which that other system may at the time have the power of conferring upon it. Something of this kind must take place, otherwise it would be difficult to account for the fact of several men contracting disease from the same source within a few days (I may even say a few hours) of one another, and exhibiting sores of totally different characters. We have every day opportunities of verifying this fact.

In regard to the question—"whether the virus of chancre and gonorrhœa be identical or otherwise," I find more difficulty in giving an answer. The appearance of ulcer and gonorrhœa together, in the same person, is no rare occurrence, and I have ascertained it satisfactorily that they have been contracted from the same source and at the same time; and we have evidence every day to prove that such may also take place in different individuals, one contracting a sore and another a running, from the same person. If, then, we assert the co-existence of two distinct poisons, we must suppose that some persons are susceptible of being affected by the one kind of poison and some by the other; which, in reasoning from analogy, we are perfectly authorized to do, for we know that some persons appear not to be susceptible of being affected by either, but may be exposed to the risk of infection with impunity. But what the laws are which regulate this infection, I do not at all understand. I have observed that one kind of affection prevails more generally at one time than another; but I have not observed that this has been the case at any particular season of the year more than another, nor that it has been influenced by any particular state of constitution prevalent at the time, or by any local circumstance that I have been able to discover. Although we can no longer avail ourselves of the argument for a diversity of poisons—that one requires the use of mercury for its cure, while the other does not, or that one is followed by secondary symptoms, while the other never is—yet, as it has not been satisfactorily proved that the matter of gonorrhœa can produce a chancre capable of propagating its own kind, nor *vice versa*, and as gonorrhœa has been found to prevail extensively, and for a long period of time, without the appearance of any other venereal affection, we have some grounds for believing that they are not identical, but distinct venereal poisons. But I confess it is a subject of difficulty. With regard to the origin of venereal virus, I have no hesitation in saying that I am of opinion that the virus of gonorrhœa

is capable of and frequently does arise spontaneously ; but I doubt very much whether this is ever the case with the virus of chancre.

From my own experience in the treatment of this disease, the question is at rest in my mind as to the necessity of the employment of mercury, being convinced that there is no form of the disease, primary or secondary, that may not be cured without its use.

With all the attention I have been able to bestow on the characters and appearances of the primary affections, which I have had opportunities of observing, I have not found that I could predict, with any thing like an approximation to certainty, whether any one more than another would be followed by secondary symptoms, or of what character these symptoms would be ; neither could I say, from the appearance of the secondary symptoms, what the character of the primary affection had been. Certainly the small superficial ulcer without induration, and which heals generally within a period of fifteen days, is less frequently followed by constitutional symptoms than any other ; yet it is followed sufficiently often, and by a sufficient variety of appearances, to prove that it is not an exception.

I have never seen but two cases, on which I could rely, of secondary symptoms consequent upon gonorrhœa alone, without some other primary affection having some time or other existed. These were mild papular eruptions, and very easily removed. As it is not yet ascertained what the utmost limit of time may be which may elapse before the secondary symptoms make their appearance, I should hesitate to ascribe the appearance of these symptoms to gonorrhœa, if I found that any other primary affections had existed within the period of one, or even two years ; for instances have occurred to me of the period being extended to the latter, if reliance could be placed on the veracity of the persons.

I have no doubt it will be found, that the average period of time which may elapse in this climate will very far exceed that which ever elapses in Europe. This may perhaps be attributed partly to the influence of climate, and in part to the constitutions and habits of the persons.

It remains only to take notice of a case of this disease, which, occurring in a strumous habit, exhibited a train of cachectic symptoms of great severity, which ultimately proved fatal.

This man was sent on a monthly detachment to an outpost ; and a few days after leaving head quarters, an ulcer appeared on the prepuce, which continued to enlarge, and about a fortnight after the appearance of the ulcer, an eruption broke out on his skin ; and in this state he presented himself at the hospital on being relieved from detachment, having in the meantime used no medicine whatever.

The ulcer was situated on the prepuce, about the size of a shilling, with deep, irregular surface, discharging a dark-colored ichor, and very painful ; and the constitutional symptoms were a very general eruption of copper-colored tubercles and blotches, most numerous on the face and lower extremities ; a quick pulse, with dry, hot skin, and altogether a great deal of constitutional irritation.

Under the antiphlogistic regimen, and the use of fomentations, poultices, and other local applications, with the free use of opium internally, the severity of the symptoms was mitigated, but the progress of the cure was very slow. At the expiration of six weeks, however, the ulcer was healed, and the tubercles had desquamated, leaving the skin sound but discolored.

Hitherto no mercury had been used ; but it was considered that a small quantity, in conjunction with the other remedies, might now be serviceable in exciting a new action in the constitution, and restoring the general health. Accordingly, five grains of the compound calomel pill were given every other night for three weeks, the antimonials and sarsaparilla being continued.

Every symptom of the disease being removed, and the general health good, he was discharged from hospital. Exactly a fortnight afterwards he returned, complaining of pain in both ears, dizziness in the head, with great deafness, loss of appetite, constipated bowels, and an extensive erythematous inflammation in the fauces. The occurrence of these symptoms he attributed to cold.

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, JULY 30, 1834.

No. 34.

(Continued from p. 284.)

Blisters behind the ears, and on the nape of the neck, with issues and detergent gargles, improved the sense of hearing a little; but the sensation of noise and confusion of the head continued; and in the meantime symptoms of pulmonic disease began to manifest themselves, and in a short time assumed the character of phthisis.

The intellectual faculties were now implicated, and he continued in a state of fatuity until dissolution.

The following were the appearances on dissection:—

Cranium.—The sinuses and venous system of the brain generally, were loaded with blood; and serous effusion had taken place to some amount beneath the arachnoid membrane. The substance of the brain, when sliced, exhibited numerous bloody puncta. On opening the left lateral ventricle, very extensive disease presented itself, the whole of the corpus striatum, and the substance of the brain outwards to the dura mater, being converted into a soft, pulpy, dark-colored mass, much resembling fungous hæmatodes. The structure of the cerebrum and cerebellum in other parts was firm and healthy, and but little fluid existed in the ventricles.

Thorax.—Much serous fluid was found in the pericardium; the heart itself did not appear to be diseased. The left cavity of the chest contained about a quart of serum, having a quantity of gelatinous matter floating in it; the lung being compressed and hepatized. This organ, when cut into at its lower part, exhibited numerous crude tubercles, but in the apex several large vomicæ had formed. The right lung also contained tubercles, but in a much less advanced stage than those found in the left side.

Abdomen.—The liver was enlarged and granular; and the gall-bladder one-third filled with attenuated bile. The membranous viscera were sound, but the mesenteric glands were extremely diseased; their substance being tubercular, softened in the centre, and containing green-colored puriform matter.

THOMAS CLARKE, Surgeon, 72d Regt.

CASES OF GUN-SHOT INJURIES OF THE EYE.—BY JOHN BUTTER, M.D. F.R.S.

Physician to the Plymouth Royal Eye Infirmary.

Case 1.—*A duck shot impacted in the Optic Nerve for about six years.*

Mr. H——, aged 50, came from Camborne, in Cornwall, and first consulted me at Plymouth, in Sept., 1830, on account of total blindness in his left eye, accompanied with very

great pain occasionally, and considerable amaurotic affection (photopsia) of his right eye. He gave the following history :—On the 19th February, 1827, while shooting, a gun was fired at a woodcock by another person, and a shot lodged in his left eye-ball, producing instant blindness. For a fortnight afterwards he did not suffer greatly ; but during the last four and a half years the pain would flash so suddenly and intensely, at times, through his left eye and head, and so seriously disturbed the visual functions of his sound or right eye, that, in whatever occupation he was engaged, his sufferings obliged him to desist for a time, to apply leeches, and to resort to other remedial measures. The fear of losing also the sight of his sound eye from sympathy, added to the actual pain felt in his left, induced him to seek, and even to urge, the extraction, if possible, of the shot, which he knew from his acute feelings must be seated in some very sensitive part of his left eye.

The following appearances were exhibited :—His left eye was rather less in size than his right, but free entirely from inflammation. On the nasal side of the eye-ball a fistulous opening was perceived through the reflected conjunctiva and sclerotica, nearer to the iris and cornea than the spot at which we usually introduce the needle in depression. I could pass a fine gold probe through this opening, nearly in to the posterior chamber ; it was evidently the entrance of the shot. The iris was not materially altered. A cataract behind it could be distinctly seen.

In a consultation with my colleague, the late Mr. J. H. Luscombe, one of the surgeons to the Plymouth Eye Infirmary, we agreed at first to dissuade Mr. H. against an operation, or any attempt to search for a shot, the position of which was extremely doubtful and uncertain ; but it was the wish of our patient that some trial should be made.

On the 9th September, 1831, aided by Mr. Luscombe, and Mr. Lanyon, jr., a very promising young surgeon from Camborne, and Mr. H.'s medical attendant, I extracted the cataract, which consisted of calcareous matter and spiculæ of bone. I afterwards syringed out some gritty matter from its bed. We all hoped that the removal of this bony lens might have been followed with corresponding relief, thinking that the ciliary processes had been irritated by its pressure and hardness, in such a manner as to account for the principal symptoms. In this hope and expectation we were disappointed ; for on 23d February, 1833, Mr. H. came back to Plymouth, having returned from hence to his home on 6th October, 1831 (twenty-seven days after the first operation), and requested me to make a farther attempt for the removal of the shot, which his feelings denoted still remained within his eye, and caused those sympathetic sensations (amaurosis) in his right eye, the sight of which being now endangered, he was most anxious to preserve. He pointed to a blueish and prominent part of his left eye, underneath which he considered that the shot must be lodged. Indeed, this idea seemed very probable to myself, and to my brother, a surgeon at Symptone, then on a visit here, who assisted me in hooking up this prominent portion of the sclerotica, which I excised with the scissors, and made an aperture sufficiently large to enable me to explore with the probe the internal concavity of the eye, and to allow the exit of the vitreous humor. Still no shot was found. It is needless to say, that this second operation disappointed us all ; but Mr. H. determined to have his whole eye extirpated at a future period, should not his complaints be alleviated by the suppuration which followed this other attempt.

At his request, on 23d September, 1833, I removed the whole of his left eye-ball, with its lachrymal gland, and divided the optic nerve far back in its socket, close to the foramen opticum, fearing that I might still miss the object of our pursuit. On dissection afterwards, I had the greatest satisfaction to find a duck shot, impacted so firmly in that part of the optic nerve which expands and forms the retina, that a considerable effort was required to detach it from its bed, in which it must have been fixed *for six years and six months*, closely embraced by the nerve. Such was the patient's extreme fortitude and perseverance, that not even was his hand raised, nor a syllable of complaint uttered, during this most painful operation, in which I was very kindly assisted by Drs. E. Moore and Rendle, the present surgeons of the Plymouth Eye Infirmary, and also by Mr. Square, a very intelligent pupil of the same. The preparation of the shot, *in situ*, I have preserved for my own collection.

At the end of a fortnight the patient was nearly well; but for three weeks afterwards he was detained by adhesions which formed between the lids and subjacent parts, and which I repeatedly divided. Some morbid sensations were felt in the ophthalmic branch of the fifth pair of nerves, and also in the ramifications of the superior maxillary, resembling *tic douloureux*, which I trust the carbonate of iron, taken in large doses, and vinum opii applied externally, will effectually remove. Mr. H. returned from Plymouth to Camborne on the 9th November, 1833 (about forty-seven days after the third operation). In his last letter he writes that the strength of his right eye increases daily, and that the neuralgic complaints in his face also decrease. A glass eye has been fixed in, to correspond with the other; but the parts are too tender yet to bear it.*

Case II.—*Sudden Blindness from the supposed rebound of a grain of shot off the Eye-ball.*—On the 1st September, 1830, I was sent for to visit T. R., Esq., æt. 41, living at Venn, near Tavistock, about fifteen miles from Plymouth. During my absence, Mr. Luscombe, one of the surgeons to the Plymouth Eye Infirmary, went over to see him. Mr. R. had the kindness to call upon me on the 23d December, 1833, and at my request to explain the particulars of his case in the following manner:—Whilst shooting partridges on the morning of the 1st September, 1830, he received in his left eye a shot, a part of the contents of a following piece, fired by a young gentleman, through a thorn bush in a hedge, at a partridge. Three shot holes were made in his hat. The immediate effect to him was a sensation like a flash of fire or lightning, quickly followed by total blindness, and very considerable tumefaction of the left lids and eye. The anterior chamber was soon filled with blood, which produced a red appearance resembling the color of a ferret's eye, or rather of a Mazard cherry. Mr. R. was conveyed home, and bled three times on that night, and about thirty leeches were applied to the swollen parts and temple; so that neither any serious inflammation nor pain followed the accident from that time to the present. The effused blood in course of time became absorbed, and with it some portion of the vitreous and crystalline humors, as the left eye is perceptibly diminished in size. The transparency of the cornea, however, is preserved, with the form of the eye; but the iris is altered to a tawny color, corrugated at its margin, and agglutinated to the capsule of the opaque lens. Not the least light can be discerned with his left eye; but fortunately its defects have not at all interfered with the vision of his right, or sound eye; on the contrary, he thinks he can see objects at a distance more clearly than he ever could do. There is an indentation in the sclerotica, which I think arises from a diminution in the size of his left eye, and not upon any wound or aperture ever existing there. His feelings do not give the least intimation of any foreign body in his eye; and his wonder is, where the shot could have entered, or where it can now be lodged. The most extraordinary part of this accident is, that no person should ever have been able to discover any precise spot at which a shot could have entered the eye-ball, nor the side it could have struck. Some surgeons have conjectured that the optic nerve was divided by the shot, and that its division would account for the suddenness of the blindness, and absence of pain; whilst others imagine that the shot must still be lodged in the adipose and insensible parts of the orbit, or in the bones; but the most probable supposition, in my opinion, is, that no shot ever penetrated through the coats of the eye, but merely struck violently against the eye-ball in an oblique direction, and bounded off, bruising the external or temporal side, and bursting some blood-vessels in the iris and retina within the eye, which immediately effused blood, the coloring particles of which being absorbed, a dense

* After Dr. Butter had kindly communicated to me the above case, I was anxious to know some farther particulars concerning it; and especially whether it appeared that the shot had passed directly through the coats of the eye, and vitreous humor, to the optic nerve, which it had entered in the line of its axis; or that the shot had traversed his eye, making its exit at the back part of the sclerotica, and then entering obliquely into the nerve, after passing through the cellular substance of the orbit. Dr. B. replied, that the shot was very little altered in its form—a little indented with a sharp point or two; that its extraordinarily firm attachment was surprising; that there appeared to have been no suppuration, nor disposition to ulceration; and that the shot must have entered the sclerotica near its junction with the cornea, on the nasal side, passed beside the crystalline, and through the vitreous humor, to the optic nerve, where it perforates the choroid coat.—W. M.

coating of lymph remained, became organized, and rendered the retina opaque and insensible to light.

[We do not agree with Dr. Butter, in the opinion that the shot did not enter the globe of the eye. Although the opening was not discovered, every person conversant with gun-shot wounds is aware how small an opening is made by their entrance. The rebounding of one grain of shot could not have produced the symptoms.—EDITOR.]

Case III.—*A full charge of shot received in the face—Confusion of Vision.*—So far back as the year 1814, a gentleman, æt. 33, traveled from Blackburn, in Lancashire, to Plymouth, to consult me respecting his eyes. Six years before, he had received in his face the full charge of a fowling-piece, ostensibly fired over a hedge at a partridge, by a near relation, who, there were subsequent reasons to fear, had designed to do him this mischief through base and interested motives. Shots had penetrated different parts of his face, and one had evidently entered the upper part of the sclerotica of his left eye, about two lines from the iris; but it did not appear that his right eye had been wounded. For many days after this accident he continued quite blind, owing to the swelling of the integuments of his face. The right eye could be opened first, and the light of a candle faintly seen with it; but with the left eye, opened two or three days afterwards, nothing could be seen. The sight of his right eye returned so far as to enable him to read and write a little, and to walk about; but that of the left scarcely returned in any degree for six months, when, strange to relate, it began to improve, and even to surpass the sight of his right eye, which, equally strange to say, began then to decline, and to confuse his vision altogether.

From that time every object appeared to be confused and double (diplopia) when both eyes were opened, but only single when one eye was closed; and always more obscure to the right than the left, especially in an evening, when his vision is much better with his left or injured eye, than with his right (hemeralopia). All the parts of his right appear natural; but the iris of his left was torn at its upper margin, and rendered perpendicularly oblong instead of circular. The shot pierced the sclerotica about two lines from the iris, which was torn, but neither injured the lens nor its capsule. Belladonna acted more freely on the injured iris of the left than on the right. After dilatation with belladonna, the irides took a long time to contract to their proper form. Both lenses were transparent. The vitreous humor looked blueish in both eyes. On looking at any one object, two always appeared—viz. the original, seen with the left or injured eye, in its relative position and proper distance; and the shadow, much nearer, and always to the left of the proper spot, when viewed with the right eye alone. If he looked at a river, a fire, a burning candle, or any luminous body, the effect was the same. A person passing in the street looked like two—natural when viewed with the left eye, but faintly represented and misplaced with the right. This confusion often caused him to run against people. He remained at Plymouth about three weeks, under my care, and returned to Lancashire with his left eye somewhat improved.

Case IV.—*Piece of a copper cap struck into the Eye—Extraction—Cure.*—Mr. K., jun. accompanied by his father, a highly respectable surgeon at Devonport, came to my house, in Plymouth, about nine o'clock, A. M. on Saturday the 16th May, 1829, on account of an accident which had happened to him about an hour before. In blasting off a gun, a piece of the copper cap with which the patent lock was charged, flew off, and struck into the centre of the cornea of his left eye, in front of the pupil, fixing itself between the laminae, from which I considered at first there could be no great difficulty in removing it. During his father's absence from my house, not exceeding fifteen or twenty minutes, in fetching some instruments from the Eye Infirmary, the piece of copper had cut its way entirely through the cornea, and floated to and fro in the anterior chamber, falling occasionally to the bottom with some aqueous humor, a part of which had escaped through the wound, and the cornea itself became flaccid. Instead thereof, of a simple, I now prepared for a very difficult operation, and found the task of perforating the collapsed cornea, with an extracting knife, by no means easy.

When I had made a section, the piece of copper became wedged between the cornea and

iris, then brought into contact, and was lost out of sight for a time amidst the fibres of the iris, from which after repeated trials with different instruments, I extracted it with the forceps, and drew out likewise some portion of the fibres of the iris, entwined around a hooked corner of the copper. Some part of these fibres I snipped off, and replaced the rest with as much care as possible, closing the incised lips of the cornea over the same. After so tedious and painful an operation—borne by my young friend with the most heroic fortitude—in which I was ably assisted by Mr. K. and Dr. E. Moore, senior surgeon to the Plymouth Eye Infirmary, I prepared the father for the worst of consequences—for the loss of the eye, or, at all events, for iritis of the most violent kind. My expression to him was—you must not allow inflammation to arise; you must bleed freely, and purge, and then give him small doses of calomel and opium every three hours; and you must strive and keep your son in bed, quietly, and in a dark room, until the cornea and iris are healed, and every symptom of pain, or tendency to inflammation, is removed.

Never were injunctions more implicitly followed. The anxious and skilful father allowed no inflammation to arise; he met every change promptly, and watched his son's progress, night and day, with the most paternal vigilance. After so gloomy a prospect, never did a case turn out more fortunately. No bad symptoms appeared, without an immediate remedy. Mr. K., jun., was blooded four times from his arm, had 36 leeches applied, and took only about eleven or twelve grains of calomel, before complete salivation ensued. Excepting a slight drag of the pupil downwards, making it somewhat perpendicular, like a cat's eye, by an adhesion to the cornea—and excepting also a black spot at the junction of the iris and cornea, on the temporal and maxillary side, showing the dark urea underneath the spot from whence a portion of the iris was removed—no difference can be perceived between his left and right eye; and, indeed, a common observer could not find out any alteration. The circular and radiated fibres of the iris have preserved nearly all their original powers of contraction and dilatation; but in a very strong light, the under fibres cannot close quite to the same extent as formerly, and then some inconvenience may be experienced. The sight of the eye is quite as perfect as it was prior to the accident. It is most worthy of remark, that both the wounds made in the cornea, the first through its centre by the copper, and the second by myself, healed without the slightest speck or opacity, or interruption to vision; and it is equally remarkable, that the capsule of the lens was neither cut, nor bursted, nor injured by the copper undulating and repassing over the parts. For so grave and serious an accident, the result was singularly fortunate. Mr. K., jun. has since studied in London, and settled as a general practitioner in Cornwall, where he succeeds well in his profession.—*Medical Gazette*.

ON THE USE OF THE NITRATE OF SILVER IN SOME INFLAMMATORY AFFECTIONS OF
THE MUCOUS MEMBRANES OF THE MOUTH AND FAUCES.—BY R. T. HUNT,

Lecturer on Diseases of the Eye at the Pine-street School of Medicine and Surgery, Assistant Surgeon to the
Eye Institution, &c. Manchester.

At a time when the exhibition of mercury is recommended in so many complaints, the following account of the treatment of some of the evil consequences which supervene upon the affection of the system, produced by this powerful agent, will not, I trust, be wholly unacceptable. Nor are the bad effects to which I allude dependent merely upon the inordinate use of this remedy; small doses, in some instances, having caused ptyalism, when no such influence on the system was intended by the prescriber. Having frequently observed the great length of time which generally elapsed before ulcerations of the mucous membrane of the mouth, occurring during ptyalism, would yield to the common astringent, or stimulant applications, although assisted by that constitutional treatment which the circumstances of the case appeared to indicate, and having also had numerous opportunities of estimating the comparative advantages of different stimulants, when applied to the mucous surface of the conjunctiva, owing to my connexion with the Eye Institution; I was induced, by the analogy of structure exist-

ing between these membranes, to conclude, that the nitrate of silver, which has proved, after repeated trials, the best stimulant in certain affections of the conjunctiva, might be resorted to with advantage in similar diseases of the mucous membrane of the *mouth*.

In the first case in which this plan was adopted, the mouth had been only three days affected; there was great tumefaction of the mucous surface of the lips, gums, and inside of the cheeks, which were also suffering from several small sloughy ulcerations; and several quarts of fluid had drained from the mouth during the day. The ulcers were freely touched with the solid nitrate. Next day the swelling had entirely subsided, the sloughs separated, and the salivary secretion was very much diminished. A single repetition, after an interval of two days, was sufficient to restore the affected parts to a healthy state. The constitutional treatment consisted of saline purgatives and diluent beverage. Since that period, I have applied the same remedy, with an equally successful result, in a considerable number of cases, in all of which ulceration had commenced. This effect has indeed occurred so uniformly, as to justify me in recommending the treatment with confidence. The following was one of the most severe affections of this description:—

W. A., a painter, æt. 26, was seized, September 1st, 1832, with all the symptoms of colica pictonum, which yielded, in the course of three days, to the employment of general bleeding, purgatives, and the external application of *spt. terebinth.* to the abdomen. During this time he took twenty-six grains of calomel, in combination with purgatives, which acted powerfully on the bowels.

3d.—In the evening, his mouth having become slightly affected, he was ordered saline purgatives, and a solution of the nitrate as a lotion.

4th.—As the lotion had discolored the teeth, the *solutio alum. cum tr. capsici* was substituted.

5th.—Several small sloughy patches appeared on the inside of both lips, which together with the gums and cheeks, were much swollen, and the salivary secretion very copious. The nitrate was freely applied to the ulcerated parts of the lips.

6th.—Lips much better; mucous membrane of both cheeks sloughy; tongue very much enlarged, and covered with sloughy ulceration, preventing, by its size, any ocular examination of the fauces. But reasoning from the difficulty of swallowing, and the pain caused by pressure on the larynx, would lead to the conclusion, that the mucous membranes of the fauces, and upper parts of the pharynx, were in a similar condition. There is now an immense draining of salivary fluid, and such a degree of suffering, that he cannot be prevailed on to take any thing except water and his medicine. Nitrate, applied to the lower surface of the tongue, and inner surface of the cheeks, for the first time, and repeated to the worst lip.

7th.—The nitrate having been too freely applied, and having consequently, caused considerable pain for some hours afterwards, was not repeated to day, but he was ordered to use a warm opiate lotion.

8th.—Much better, except the under surface of the tongue, which had not become inflamed until the 6th; swelling and salivary secretion much diminished. Nitrate applied sparingly to the tongue. Opiate lotion continued.

9th.—Improving; no farther occasion for the nitrate.

12th.—To-day I met him walking out. Mouth quite well; salivary secretion natural.

It may be proper to add, that saline purgatives were given daily; and that in both instances the patient was desired not to swallow the saliva after the caustic had been used.

Since the occurrence of these cases, I have followed the same plan of treatment in inflammation of the fauces, accompanied by enlargement of the tonsils; and although in many instances the disease has been of that acute character in which local depletion is invariably adopted, and which frequently terminates in suppuration,—and although the nitrate was applied in the commencement, unassisted by any other local remedy,—the disease was brought to a speedy termination without any formation of pus taking place. I have also tried the caustic in four cases of scarlatina anginosa, in one of which, occurring in a boy, æt. eight years, the tonsils were so much enlarged, that by a single introduction of the pencil, the caustic was ap-

plied to both tonsils; and after one repetition, the swelling subsided. In the others, a single application was sufficient to produce a favorable result.

I have hitherto principally alluded to the local advantage to be gained by the employment of this remedy, viz. the removal of the inflammatory affection of the mucous membranes connected with the mouth and fauces. But I consider the speedy termination of increased salivary secretion thus produced, a circumstance of equal, or even still greater importance. Instances occasionally occur in which ptyalism continues, in spite of all treatment, whether local or constitutional, for such a length of time, as to reduce the sufferer to a deplorable state of debility, from which he never entirely recovers, although existence may be prolonged for a few years. And in such cases, there is frequently no ulceration, nor even any active inflammation present; or if in the first instance these circumstances have existed, they are now no longer to be found, the tongue and inner surface of the mouth being only slightly tumid, and the gums spongy. But the salivary glands seem incapable of returning to their natural action; and although the stimulus which caused the inordinate secretion may have been long withdrawn, the habit has been too firmly fixed to be easily eradicated. The draining of saliva continues for months, or even years, producing the lamentable consequences already noticed. The records of pathology also supply us with similar instances, although differently produced. I refer to idiopathic ptyalism—an affection no less obstinate in its course, nor less serious in its effects, than salivation produced by the exhibition of mercury. I have not met with any case of such long-continued affections since I have adopted the method of treatment by nitrate of silver (a period of nearly three years); but a deliberate view of the evidence of its beneficial influence afforded by those instances in which it has been employed, would, I think, justify a rather sanguine anticipation of its effects in these cases also, in which I should therefore recommend it to be cautiously used.

The manner of employing the nitrate may be collected from the preceding report, with the addition of the following limitations. Should the patient complain of very severe pain, continuing for some hours after the application, this will have arisen from its either having been too freely, or not sufficiently accurately applied. Such being the case, and the disease still continuing, the remedy must not be again resorted to for two or three days. When the ulceration, tumefaction, and salivary secretion, have been considerably lessened by the first application, a repetition may not be necessary; or it will at least be desirable to wait a few days, in which time the affection will frequently have so far subsided as to render the further employment of the nitrate not only useless but decidedly injurious. I have more than once observed the ill effects of persevering too long in this treatment; and I can safely state, that not even the most severe affections will require more than eight or ten applications—seldom so many. The pain is trifling, unless when the application is so freely used as not only to affect the diseased but also the surrounding healthy structures; and there is this variation—that when the tongue, gums, inner surface of the lips, and of the cheeks, are affected, the pain caused by the nitrate is much greater than that produced by its application to the uvula, tonsil, or fauces. In these latter instances the sensation scarcely deserves the name of pain.

These observations are intended to refer to the diseased structures only; for if applied in the same manner to similar parts in a healthy condition, the pain is frequently very acute, the nitrate then acting as an excitant of inflammation, which identical application, in the former instance, produced (however paradoxical it may appear) the subsidence of that inflammation which already existed.

I am fully aware that the nitrate in solution has been frequently recommended in similar affections; but it will be found upon trial to cause as much suffering as when applied in substance; and requiring to be much more frequently repeated, before the desired effect is obtained, constitutes an important objection to this mode of its employment.

ON THE TORSION OF ARTERIES.—BY MR. COSTELLO.

The operation of *torsion* has in its effects great analogy to the ligature, and seems capable of supplanting the ligature in many cases. It is simple, and in saying this we give it the highest recommendation that can be bestowed on a surgical process. The merit of its invention belongs, undoubtedly, to M. Amussat, and would, if he had no other of his numerous claims to fame, suffice to render his name illustrious amongst the surgeons of the present age. As I have said before, there is nothing new in crimping, jagging, or even turning on its axis, a divided artery in order to stop hemorrhage; for from the time of Galen to our own time, this process was known, but the operation of torsion,—in the sense which is now attached to the word torsion—methodical in its arrangement and certain in its effects,—is an entirely new and most valuable hæmostatic process.

M. Amussat having observed that in gun-shot or contused wounds, or in great lacerations of the limbs, even large vessels rarely bleed, imagined, that by imitating this contusion of the vessel, the same effect must follow. In order to test this idea, he instituted a series of experiments, which, however, led to no decisive result. But he was struck on one occasion, in which he had twisted the artery, with the fact, that it furnished no blood, and thus an accident developed the truth which his reasoning from other facts had anticipated.

I shall now describe the manner in which M. Amussat practices torsion. He seizes the divided vessel with a pair of torsion forceps, in such a manner as to hold and close the mouth of the vessel in its teeth. The slide of the forceps shuts its blade, and the artery is held fast. The artery is then drawn from out of the tissues surrounding it, to the extent of a few lines, and freed, with another forceps, from its cellular envelope, so as to lay bare its external coat. The index and thumb of the left hand are then applied above the forceps, in order to press back the blood in the vessel. He then begins to twist the artery. One of the methods consists in continuing the torsion until the part held in the forceps is detached. When, however, the operator does not intend to produce that effect, he ceases, after from four to six revolutions of the vessel on its axis for the small arteries, and from eight to twelve for the large ones. The hemorrhage instantly stops. The vessel which had been drawn out is then replaced, as the surrounding parts give support to the knot which has been formed at its extremity. The knot becomes further concealed by the retraction of the artery, and this retraction will be proportionate to the shortening which takes place by the effect of the twisting, so that it will be scarcely visible on the surface of the stump. It is of the utmost importance to seize the artery perfectly, and to make the stated number of twists, as otherwise the security against the danger of consecutive hemorrhage will not be so perfect.

It has been already stated, that when we apply a ligature, the internal tunics of the artery are divided. In the torsion, these tunics are also divided, but in comparing one with the other, there will be this difference,—that in the case of the ligature, the internal tunics, though detached from the cellular coat, remain, nevertheless, close to it, so that there exists but very little space between them; but in the torsion these tunics ascend, and take a position in the middle of the clot, to the rapid formation of which they contribute, and the clot itself extends to the next collateral; a space exists between the knot and the internal tunics, in which the cellular coat inflames, when plastic lymph is thrown out, and the first obturation of the end of the vessel is effected. The same process of exudation takes place from the internal tunics higher up, and the clot thus becomes adherent to the circumference of the arterial tubes, and thus also the obliteration of the vessel is rendered doubly secure.

Experiment 1.—M. Delcroix, M. Amussat's assistant, laid bare the femoral artery of a middle-sized dog, when I applied two pairs of forceps on the vessel, which I divided in the interval, and, according to the process described, twisted the upper end eight times, and replaced it. There resulted no hemorrhage. I then twisted the lower one, but not being *au fait* of the manœuvre, which I should observe requires tact and practice, it was imperfectly effected.

[Continued in No. 35.]

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
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ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, AUGUST 6, 1834.

No. 35.

(Continued from p. 292.)

Consecutive hemorrhage came from the lower vessel, which I sought, and again seizing it and freeing it from its connexions, I twisted it eight times, when the hemorrhage instantly ceased.

Experiment 2.—I laid bare the femoral artery of a large dog. The vessel was of large caliber; I proceeded as before, and no hemorrhage took place.

Experiment 3.—The carotid of a mastiff was laid bare, and I practised the torsion as before. The size of the vessel was considerable. I twisted the vessel on the side of the capillaries eight times, and on the side of the heart until the rupture of the portion held in the forceps was effected. No hemorrhage ensued from either.

Experiment 4.—The femoral of a large dog was laid bare, and was twisted in the usual way on one side, until rupture was effected, and on the other until a knot only was formed. I now, at M. Amussat's suggestion, untwisted the knot. No hemorrhage followed, although the knot was entirely untwisted.

Experiment 5.—In another experiment the epiploon of a dog was exposed, and a portion of it removed. The divided arteries, which were numerous, furnished blood abundantly. They were seized and twisted two or three times each, when the hemorrhage ceased.

It would be tedious to prolong the recital of experiments, for they invariably, and under whatever circumstances performed, furnished the same results.

Another illustration of the efficacy of torsion will be found in the torsion of any given artery, the radial for instance. If a syringe be applied higher up, and water be impelled from it through the tube of the twisted vessel, the knot will be raised up, but it will remain untwisted, and not a drop of water will pass, no matter what force we employ.

In examining minutely what takes place in the twisted artery, we find the internal membranes twisted and forming a cone, of which the apex is directed towards the heart. If we cut this cone longitudinally, it presents a clot of blood which is strongly adherent to the inner coat of the artery, and which completely stops it up. If we examine the artery, at a certain distance of time from the period of the operation, we find this clot and membranes solidified, and the vessel obliterated as far as the next collateral.

So much for experiments on the lower animals.

The method of torsion has been employed in operations on the human body with the same results. M. Amussat himself now employs no other hæmostatic method, and I can state that he has found it successful, in castration, in amputations of the thighs, arms, &c. and in the disarticulation of the shoulder-joint. M. Fricke, of Hamburgh, is so satisfied with this method,

that he employs no other, either in his private practice, or in the hospital over which he presides.

The frequent examinations which M. Amussat has had an opportunity of making on the effect of the torsion of arteries, have suggested to him another method, which he calls *refoulement*, or *pushing back into the arterial tube the divided internal membranes*. The refoulement of these membranes is effected without any division of the artery. The vessel is simply laid bare, and seized with a forceps, beaked in the usual way, but which, above the beak, is rounded in both blades. The artery is pressed strongly between the rounded part of the blades, and thus the internal membranes are cut. Another and a similar pair of forceps is now fixed on the flattened vessel, and the membranes are pushed back, or *refoules* by a zigzag movement of the first forceps. One, two, or three, or more, of those *refoulures* or *machures* may be made; and from some of the arteries treated in this way I saw the following results. The outer or cellular coat inflames, and plastic lymph is exuded. The internal membranes fall into the same circumstances as in the case of torsion, but with this difference,—that the number of diaphragms arranged to form clots, is in the ratio of the *machures* made on the artery.

In no instance, when properly employed, either in animals or in man, has the twisted artery been observed to ulcerate, or become gangrenous. Its effects, and the organic changes which it produces, appear to be these:—the internal membranes are broken; they become narrow, or, rather, roll up and join, so as to form a *cul de sac*; they pour out plastic lymph, which adheres to the clot, which is formed immediately and invariably between this point and the nearest collateral. The outer membrane forms another *cul de sac*, and its internal surface pours out plastic lymph also. A similar process takes place between the outer surface and the surrounding parts.

Let us now see what takes place when the ligature is employed.—1st. Jones states that the middle and inmost membrane, when cut by the ligature, join, and that the cellular membrane remains entire, the blood passing through the collaterals.—2d. A clot is formed in the arterial tube, if there be no collateral vessel immediately near it.—3d. An inflammation of the cut membranes takes place, and they become agglutinated by the plastic lymph which they pour out. The same process obtains on the outer surface.—4th. The portion of the artery, comprised in the ligature, ulcerates, and it is only when this process is complete that the ligature drops off.

We can now appreciate the advantages or disadvantages inherent in either method. When *torsion* or *refoulement* of the internal membranes is employed, the wound may be united by the first intention. There is no foreign body in the wound, and there is no danger of consecutive hemorrhage.

When the ligature is had recourse to, there is a foreign body in the wound, which must be thrown off by ulceration or gangrene. It often happens that the ulcerative process extends to the surrounding parts, and consecutive hemorrhage takes place, when the end of the artery and the ligature are thrown off. Moreover, the external wound sometimes heals before the ligature is detached. In this case there is danger of an unmanageable fistula. One of the great advantages, therefore, of torsion is, that it allows immediate union of the wound, as will be particularly evident in hemorrhages of the epiploon, and in aneurysm of the carotids, for in the latter case there is great risk of the ligature giving rise to *fusees* of pus descending into the cavity of the thorax. The application of ligatures requires the aid of an assistant. The torsion may be effected by the operating surgeon alone, and, undoubtedly, on the field of battle, this is an incalculable advantage. It is also but fair to infer from what precedes, that torsion may be of the highest importance, in operations which may be performed on the capillary side of an aneurismal tumor.

NEW THEORY OF ELECTRO-CHEMICAL DECOMPOSITION.

DR. FARADAY having recently communicated a paper to the Royal Society, on the subject of the influence of electricity in decomposing bodies, was induced to anticipate its publication,

by explaining to his friends this evening some of his new views. He began by stating the peculiarities that belong to chemical decomposition, where changes are effected in the constituents of bodies, and new compounds are formed, by the influence of mutual affinities merely. In these changes the decompositions and new combinations are invariably produced by the constituent particles being brought into almost immediate contact. But the case is very different where electricity is employed. Here the constituents are disengaged, being acted upon by forces operating often at a considerable distance, and through media which remain unaffected; and no new combinations are formed—the elements being extricated in a free state. These are facts which place electro-chemical decomposition on a footing perfectly distinct from that which is merely chemical; and it was by the contemplation of their possible causes that Dr. F. had been enabled to construct a new theory on the subject. All his predecessors, including among them Sir H. Davy, had each professed to give different and original explanations of the phenomena; but the opinions of all were really identical. They assumed that an attractive influence was exerted on the particles, by the poles of the battery; but Dr. Faraday's view of the matter is, that the current of electricity communicates rather a repulsive property to the constituent particles, which thus become disengaged. In support of his theory the lecturer performed several beautiful experiments, which were executed with that quickness and delicacy for which he is so justly celebrated. We cannot pretend, in a short notice like this, to enter into details; nor should we be over-anxious to do so, as Dr. Faraday's paper, with full particulars, may be expected so soon to be laid before the public.

CLINICAL LECTURE ON CASES ON HERNIA;

DELIVERED AT THE MIDDLESEX HOSPITAL.—BY SIR CHARLES BELL.

Affections of the Portio Dura.

BEFORE I proceed to my proper subject, which is Hernia, I cannot help expressing my surprise at the number of cases of affections of the nerves of the face which have occurred to us during the last week. You have had before you a case of affection of the portia dura of the seventh pair, in a patient in Hertford Ward, where the symptoms appear to have been produced by pressure on the nerve, near the stylo mastoidean hole, for every part to which the nerve is distributed was affected. I had a case of paralysis of the face of the same kind, sent to my house by Dr. Marshall Hall, who kindly conceived that I might have an interest in it. The patient, a little old man, gave me a cock-and-a-bull story about the cause of it. It seems, that when his mother was pregnant, she was frightened by the noise of a pig under the knife of the butcher, on which she clapped her hand to her ear; and thence the misfortune to her offspring, this loss of power in the side of the face, and this pendant ear, which hangs over like a hound's or a pig's. He has been deaf, as well as paralytic, on that side, since his childhood. Dr. Copland, with the same kind intention, sent me a man in a similar condition. His story was, that in a Christmas gambol he got his ear pulled, which was followed by pain in his ear and deafness, and after some time, by the loss of power in the muscles of one side of the face. That is the patient now in Stafford Ward; and you have an opportunity of observing the characteristic symptoms of an affection of the portio dura within the ear, and, as I am much afraid, where there is some affection of the base of the brain. Mr. Elwyn will inform you, that on softly approaching the patient's bed while asleep, he observes that he contrives to lie on the pillow in such a manner that his cheek is forced up, so as to close the eye-lids. I have noticed in other patients who had paralysis of the muscles of the face, that they avoided lying on the sound side, because the pillow obstructed the motion of the nostril that was free. Since the occurrence of these three cases, two others have been presented to me, one of which is an instance of a very interesting kind, as proving the effect of the division of the portio dura. Some few years ago I should have given all my goods to have had such a confirmation of my opinion regarding the office of the portio dura. This gentleman came to my house, accompanying his sister, who was my patient; his appearance was very remarkable, and I confess dis-

tracted my attention not a little. After giving my advice to the lady, I ventured to ask him a few questions, which he answered very politely and good naturedly. His features were drawn to one side in the most extraordinary manner I had ever seen. His mouth appeared to open upon the right cheek; the motions and animation of his features were altogether confined to the right side; the other side of his face was a mere inanimate mask: the eye-brows remained motionless, the eye-lids open, and the skin of the cheek drawn tight. He had perfect sensibility, though no motion. This more than ordinary distortion is attributable to the peculiar cause: for in the cases that I have had an opportunity of showing you, the nerve was morbidly affected, but not destroyed. More or less disease in a part in the neighborhood of the nerve, or inflammation around it, or pressure upon it from a swelled gland, may produce such appearances as you have beheld; but in this case the nerve had been totally divided, and at an early age. He told me, that when at school, he, with some of his companions, undertook the rolling up of a cask; the cask recoiled, bore him down, and the end of one of the hoops caught him under the ear. The hæmorrhage was very great, and to suppress it they had to stuff the wound. When he had the opportunity of observing, he found that he had lost all motion of that side of his face. I have no doubt that the trunk of the portio dura had been divided. The effect, altogether, of the loss of the office of the portio dura, on a fat, fair, good humored countenance, is most lamentable. The remedies to which this gentleman submitted do not convey a very high notion of the knowledge of his medical attendants: for what could they intend by courses of mercury, electricity, and friction, when the sole nerve which animates the features was actually divided. Having had these cases before you, you will yourselves reflect on the condition in which a patient would be left, were you intentionally to cut across the portio dura for tic douloureux: his face would haunt you in your sleep.

Femoral Hernia.

But I proposed to day to make some remarks on these two cases of hernia, which you have just visited with me, both occurring in women, and in whom the operations have been successful.

Our progress in professional knowledge is not represented by a straight line: we do not move uniformly forward, but rather like a man on skates, whose efforts receive a bias, and who, after certain complimentary manœuvres to the admiring crowd, returns very nearly to the point of the circle from which he set out. You will be more sensible of this as you advance in life. In recommending you to study the anatomy of hernia, I may suggest this to you—that if you proceed in your dissection with a fine edged scalpel, hook, and forceps, you may display all the fasciæ that have been minutely described in books, and yet remain ignorant of the exact ligament or tendon which strangulates the gut, or, indeed, of the nature of those passages through which rupture takes place. Let me, then, advise you to *feel* your way here. Suppose you were in the situation which I held early in life, that of assistant to a lecturer, and that he required you to make such a hernia on the dead subject as he could operate upon,—you must make your incision into the abdomen; you get your hand into it, and feel all round the inside of Poupart's ligament, and round the pillars of the rings, in search of the internal ring; but you find no outlet. The first thing you are called on to admire is how completely—how perfectly, this lower part of the abdominal walls is closed up—how admirably it is contrived that the viscera shall not slip out by the arch, under Poupart's ligament, which admits the vessels to the thigh, nor through the spermatic passage.

But being forced to make an inguinal hernia, you begin to work at that point where the vessels of the testicle or cord (scarcely yet a cord) pass through. The vessels of the testicle pass between the two portions of the transversalis fascia; and at last, you bore in your finger, and make the passage wider and wider. What do you feel? You feel that towards the inside—that is to say, towards the pubes—you have a difficulty in enlarging the passage; you feel the sharp edge of a tendon or ligament, and that you must break it down by force, so as to bring the internal ring nearly opposite to the external one; at last your finger slips out between the pillars of the external abdominal ring. Now this is an admirable demonstration, although there be

nothing seen! You have what is better, a distinct *feeling*—a conviction of what it is that makes the stricture, whether at the inner or the outer ring. Now you understand what I mean by recommending you to trust to the finger, or to the touch, rather than to the eye.

Formerly in my course of lectures, when I came to this subject, I was happy to speak of Sir Astley Cooper's work as one creditable to himself, to the profession, and to the country. I conceive that in that publication the anatomy is perfect to its end; for I hold that the anatomy may be carried too far. You will say that is a strange opinion: how can it do any harm? By occupying your minds too much, to the exclusion of things more important; and I hold that the pathology of the intestine, from which the very rules of practice are drawn, is more important than the anatomy of the rings. Besides it is quite possible, as I have seen, for students to dissect and work on the fasciæ of the groin and inside of the abdomen for the greater part of the season, to the neglect of many subjects equally important in practice. That is what I mean by saying that the anatomy may be carried too far; it may occupy too much of your time and attention.

Now I wish that the abilities of my friend Mr. Guthrie had been directed to a different subject. By taking up this, he appears to me to be retouching a portrait that was already finished. A picture which had been carefully composed, varnished, framed, hung up, and admired, he takes down again, and retouches, and I had almost said, daubs it with foreign colors. I am unwilling to acknowledge these foreign authorities, for, after all, their utmost merit is to have done in their own country what Sir Astley Cooper has given them an example of in this. I am not about to deliver any thing new: but I have always thought, and do now think, that in consequence of the discussions concerning the parts around the sack, there has been rather a neglect of the great principles of pathology which are to be drawn from the contemplation of the gut. I have heretofore criticised freely some of the opinions in Sir Astley Cooper's great work, upon the same grounds that I would now criticize his commentator.

It is conceived that the stricture, in inguinal hernia, may result from the contraction of the muscular fibres of the passage. Now I would ask you, for already you are acquainted with the data on which we reason, do you observe any difference in the symptoms of a hernia when it comes through the spermatic passage, and when it comes under Poupart's ligament; when it comes through some of the accidental rents in the abdominal walls, and is called an abdominal or ventral hernia; and when it comes through the umbilical passage, and is called *exomphalos*; or when it is an internal hernia, and passes through the diaphragm or the obturator ligament? Is there any record of symptoms to distinguish the case according to the part through which the intestine passes? Is it not on the contrary, universally assented to and understood, that the symptoms of hernia are the same, in whatever part the disease occurs? Now you observe how this bears upon the question, because, if the symptoms of a hernia be universally the same where there are muscular fibres and where there are none, it is pretty clear that these symptoms must be attributable to something else than the muscular fibres of the ring. Why is it that the pain is always referred to the umbilicus? Because the girding of a portion of the intestine is attended with an action in the intestine itself, and the pain is first fixed in that part, and then passes round, as in colic, attended with a twisting in the region of the umbilicus; which pain again returns to the part which is strictured, wherever the stricture may be. The irregularity, or rather the return of the pain, is the character which belongs to spasmodic action; but this spasm is not from the girding of the stricture around the intestine, but from the action of the intestine itself: it is a muscular tube, and in it, as in all muscular parts, the pain occurs in paroxysms.

But in order to keep our attention to points of practice, and not to fall into theoretical disquisition, I must now read a case of femoral hernia.

Irreducible Femoral Hernia—Operation.

"Mary Booth, 42 years of age, a married woman, was admitted into the hospital on the 19th of December, at one o'clock, with an irreducible femoral hernia of the left side. She first perceived it two years ago, and it came down when she was lifting a heavy weight. She was

brought into this hospital, and relieved by the warm bath and the taxis. She was dismissed; and from the time she left the hospital she has worn a truss, and has not left it off since. About eight o'clock on the 19th (five hours previous to her admission), when she was moving a heavy weight, she found great inconvenience in the seat of the rupture, and, on taking off the truss, she found the swelling had suddenly increased in size. A medical gentleman was applied to, who was, however, unable to reduce the tumor, and he advised her to come into the hospital immediately."

Let me observe, that if, as I have sometimes flattered myself, we have been, of late, more successful in cases of hernia, it is not owing to any improved principle or practice on our part, or our greater activity or dexterity, but to a general improvement. There is no practitioner in our neighborhood who is not aware of the necessity of immediate assistance, and now the patients are brought more directly under our observation. This is, in fact, the cause of our better success.

"When she came into the hospital the taxis was employed, she was bled to syncope, put into a warm bath, and the attempt at reduction made again, but in vain: the tumor remained of the size of a large walnut; not, however, very tense. There appeared a small swelling on the right side also; but for this she had not worn a truss. She was now very sick; and although she said that her bowels had been opened twice during the day, about two hours after her admission the pain became very severe, and extended all over the abdomen. At nine A.M. the bath was again employed, but without success. The surgeon of the week was sent for; he examined the swelling, and after the necessary consultation he determined on operating."

You saw the operation, gentlemen, and now I shall merely remind you of the mode of performing it. You may either draw a fine-edged knife over the integuments, or operate as you saw me do, by pinching up the integuments and cutting them while they are held so. The only advantage of this mode is that you do it at once, with little pain to the patient. You may, however, on making the incision, attempt, if you choose, to leave such a flap as will cover the neck of the sac, and enable you to put your compress on with more effect. Under the integuments were the fat and glands, and certain filaments of the external fascia mixing with the fat. After a little dissection, you saw we came to the neck of the sac—to the crescentic arch. Now, if you are operating, you should prosecute the dissection so as fairly to expose the crescentic arch, and consequently be more careful in clearing the neck of the sac than the body of the tumor. If it be a large hernia, you are not to draw the knife over its whole length. I have many years ago, seen the surgeon, when the tumor was large, draw his knife from the top to the bottom. If it be small, this must of course, be done; but the object of the incision is to get to the neck of the sack, and it is not to be long, in proportion to the tumor. If you cut the whole length of the hernia, you have the whole mass of intestines in your hands; than which, nothing can be worse, for it is then difficult to reduce them; you are forced to handle them, tumble them about, and squeeze them; and when you reduce them at last, it is ten to one but you have inflammation of the whole mass, and death the consequence. Perhaps I should have reserved this remark for a case of scrotal or umbilical hernia; but it is enough that you understand me.

There is a peculiarity in femoral hernia; I mean the fineness of the sac. First, you have a sheath round the proper sac, which deceives you, because, owing to the regularity of its form, you are apt to take it up for the true sac. It is not the sac, but the facia over it thus curiously moulded. You catch it in a fold with the forceps, and, carrying your knife horizontally, open it; then you introduce the bistoury, slit up the membrane, and then you find what appears to be the intestine; and many have allowed themselves to be so deceived, thinking they have come to the intestine, because the surface now presented has so much of its shape and color. Look narrowly into it, and you will find that you have not the blood-vessels as they should appear; or take the membrane between your finger and thumb, and you will feel the nucleus within—that there is still a sac, though a very thin one, between your fingers and the intestine. You open this, the true peritoneal sac, and out spurts a serous fluid. The serous exudation from the surface of the intestines and the interior of the sac, points out directly that you have

penetrated the peritoneum, and now slitting it open, you see the little dark-colored fold of intestine. This is the moment decisive of the patient's fate : you judge of success or failure by the appearance of the intestine. If it be very dark, you are alarmed. The intestine may be dead, and ready to slough, or it may be dark by extravasation, or in consequence of the mere gorging of the veins. You saw in this case, that, although dark, the vessels carried blood, and that I therefore thought right to reduce the intestine. Now, as to the manner of doing this, it is well to say that the finger is the best director ; but take care you do not use your finger here for that purpose, for by the attempt to squeeze in the finger between the neck of the sac and the intestine, you will be in danger of bruising the already tender intestine irreparably. You smooth down the gut and pass in your director, and then the bistoury along the groove of the director ; and, keeping the points of these two instruments together, you separate them by raising the knife like a lever. You need not cut, or draw the knife, but just separate the two instruments, and the effect is that you do not cut the soft cellular texture, but only the part which resists. It is the firm edge of the sac and ligament which resist ; and these only are cut. Need I say that your assistant should, in the meantime, carefully guard the intestine ?

Now if you wait for a minute there is no harm—you may perhaps have the pleasure of seeing the immediate change in the color of the intestines (for the circulation has been very much impeded) ; if it is free, after this delay it takes a livelier color, which is the most favorable symptom you can desire. What do you do next ? Push up the intestine ? No ; gently draw it down—*very gently* ; because I beg you to recollect that where the intestine has been long held in the grasp of a sharp stricture, it is hurt and made tender ; especially the inner coat. You gradually pull it down, because you have to press out the contents of the intestine, and if you do that while there remains any degree of stricture at the part of the intestine which has been long held and bruised, you may do a great deal of harm. You pull it down, in order to bring the healthy part of the intestine opposite to the neck of the sac ; and then you compress the intestine. You do not even now attempt to push it up, but you compress it, so that the fluid which has accumulated in it (perhaps the fæces, but more likely a mucous secretion) is urged forwards. The intestine then being flat, with a very little assistance on your part it is drawn in ; and if it be so drawn by the excited intestines within, that is another favorable circumstance, and promises well.

But suppose that it happens, as it occurred in this case, that when the sac is opened the intestine appears in an unfavorable state ; what is to be done ? You heard what my colleague said ; he advised the gut to be opened, and I have often done it ; but it is a most serious question, and is not to be done unless you have grave reasons for it. I remember being in consultation, in precisely the same circumstances, with my friend Mr. Brodie ; whose plain good sense in these matters is above eulogy. He inquired, “shall we open the intestine ?” I begged that he would put a warm sponge upon the intestine, and that we should retire for a moment. We did so ; and it was agreed between us, that if the color of the intestine recovered during the short interval, then it should be returned ; and further, if it did not appear to be decidedly recovering, that, without any further intercourse of signs or words, he should touch the surface with the point of the lancet ; and if the blood came, that the intestine should be reduced. On returning to the patient, the blood did start from the touch of the lancet, and the intestine was returned. The patient recovered.

I will give you another reason why, in this case, I returned the intestine ; for paying all due respect to the opinion of my colleague, it suggested itself to me that the color of the intestine was not such exactly as we find to be produced by congestion ; it appeared more like ecchymosis, the effect of the severe pressure used during the employment of the taxis. It was this circumstance which influenced me to reduce the gut ; and by the success of the measure, we may say that it was well the distinction was made. But, in passing, you will not fail to recollect the degree of injury that may be done to the surface of the bowel, by too much pressure in the attempt to reduce it.

The operation was performed at twelve o'clock ; an hour after the operation a common injection was administered. At four o'clock the bowels had not been relieved, but the pain was

less, and the patient had been dosing; the pulse 90, and soft; the tongue clean and moist. There were now given her six drams of castor oil, and two drams of tincture of senna. At ten o'clock the bowels were relieved once, and she then began to take a little calomel and opium—two grains of calomel, with a quarter of a grain of opium. In the morning she had slept a little; the bowels had been relieved three times in all since the operation; the pulse 96, and soft; slight pain in the abdomen; tongue clean and moist. I need not go on with these particulars, though it is right they should be noted down; I will merely state, that every thing went on successfully.

I have only one remark to make on the treatment. At one time I entertained the idea, that after such an operation, and after the intestines had long suffered, as they must necessarily do in hernia, by working under their load, and when they were in a condition prone to inflammation, the best thing that could be done was to allow them to remain quiet under the influence of an opiate, and to evacuate only the lower part of the bowels by large clysters. But, after experience, I found it to be of the greatest consequence to have a full operation on the bowels, only taking care that it should be obtained by the mildest possible means. If you administer castor oil, it will probably be rejected; but if you add to an ounce of it three drams of tincture of senna, it will be more likely to remain on the stomach, and produce a full and repeated operation on the bowels, bringing away scybalæ, and effectually relieving the intestines. When this is done, you have the fairest possible promise of success; yet even then we cannot be quite relieved of the apprehension of peritoneal inflammation.

Now there are some questions that suggest themselves from this case; and there are others arising from what I know to be passing in your minds.

With regard to the propriety of opening the gut, let us think what is the object of that practice. When the patient dies after the operation, you very often find that the part of the gut which was down in the herniary sac, has been so injured, that it has refused to act; that is to say, its muscular fibres have not been excited to the series of actions which should proceed in regular succession in all the length of the intestinal canal; and the portion that was included, though freed, has continued to be the cause of obstruction. When we think that the intestine is so far gone, by the process of incarceration (and strangulation supervening on incarceration), you are sure that the muscular fibre will not act, even after the stricture is removed, and the intestine reduced into the abdomen. When we find an intestine in such a condition, and we are very certain that it will not resume its action when reduced, it is better to slit it up at once, and to relieve the upper part of the bowels, introducing from the slit a clyster pipe, and allowing the accumulated flatus and secretion to pass off; for if you have understood the principle of pathology, you will recollect that the grievous symptoms in hernia proceed from the distension of the portion of the canal between the stomach and the stricture.

When by such means the pressing danger is removed, you have produced the case of anus at the groin, and have to think how that is to be managed.

But the next thing that occurs in the present case, and which I know you are discussing among yourselves, is the recommendation of removing the stricture without opening the sac. See, then, what took place here: I found upon cutting the crescentic edge, or the little wing-like process which goes down to the sheath of the femoral vessels, and which is continued from the lower or inferior edge of Poupart's ligament, that the stricture was not taken off. You saw that I had considerable difficulty; you saw that the operation was as tedious as it was difficult; but you could not see what I beg to assure you of, the great care that I took of the intestine, neither to finger it too much, nor to compress it too strongly, and for the reasons I have assigned. I found that the stricture was not removed, that it was in the neck of the sac, and not in the tendon. Those of you who were near me must have seen with interest, that the operation appeared to be finished—that the tumor disappeared—that the intestine was *removed from the eye*; but the case was not satisfactory to me; so that, after it must have been supposed by you that the operation was completed, you saw me draw the whole portion of intestine down again; that then the assistant took firm hold of the sac, pulling it down so as to be on the stretch; that I passed the director and bistoury again between the gut and the sac, and cut the stricture deep,

a full inch within the crescentic arch. That which I cut was the edge of the stricture of the proper sac. You will now reflect upon what is stated in the narrative of the case, that from the time the patient first came into the hospital she had worn a truss. Remember what is the effect of a truss. The pressure of a truss produces a change in the peritoneal sac, and you have always to fear that a certain degree of stricture, or unusual firmness, will occur in the neck of the sac, when there has been a truss long worn. This is one of the disadvantages, contrasted with the many essential advantages, of a truss; it produces a condensation which entirely destroys the natural elasticity of the neck of the sack, and produces some cord-like filaments in it.

A patient was brought into the hospital moribund, and died; and we had an opportunity of examining him. He had been operated upon by the taxis, and the surgeon was convinced that he had done every thing required of him. A tumor was discovered quite within the muscular walls of the abdomen, which proved to be the strangulated intestine within the peritoneal sac; so that the surgeon had reduced the sac and the intestine within, and the stricture which produced the strangulation being in the mouth of the sac, there was no relief, and the patient died. Here, then, is the first thing that you will reflect upon when this question is agitated, regarding the propriety of opening the sac. Always remember that, in certain circumstances, the stricture is in the neck of the sack itself.

Now I go freely into this question, because I have studied it, as I stated before, and acted upon it long ago; I have repeatedly, within the last few years, in operating, taken off the stricture by dividing the tendon, and have reduced the intestine without opening the sac. Having done it, I say that I do not feel a disposition hostile to the practice; but I have to recommend you to be guarded, for you see that it is possible, even when the sac is opened, to reduce the intestine without relieving the stricture: how much greater the danger when the sac is not opened at all! On this very occasion, where I hope you saw that there was every care taken in the performance of the operation, I had got the knuckle of intestine within the ligament, and out of sight—to all outward appearance, successfully reduced. But the condition of the parts did not satisfy me. I thought of the dangers, and resolved to bring all down again, and to trace the edge of the sac to the stricture, and to make certain of its division. In certain cases, such as in a recent hernia, where it is quite clear that there has not been time for the condensation of the sac; and again, in a large hernia, it may be right to dissect the fibres from around the mouth of the peritoneal sac, and to reduce the gut without disclosing it.

The recent publication of Mr. Key on this subject is highly creditable to him; and I conceive it to be a very fortunate circumstance, when our great hospitals are in possession of those well-informed men, who have their minds alive to all the improvements, and all the important questions of practice. However, I do not mean to say that he conceives it is a new question. When I attended Dr. Alexander Munro, the father of the present professor, he delivered himself in the most animated manner on this subject. He was a thoroughly well educated man in surgery, and he saw more surgery in consultation than most operating surgeons do. He had, in two or three cases, advised the operation to be performed without opening the sac, and these cases terminated successfully. I well remember, that he delivered himself on this subject with that liveliness of manner which shows a man to believe that he has made an important improvement. He perhaps carried the suggestion too far, or sustained it too ingeniously. He was so far short-sighted in this matter, as to conceive that the opening of shut sacs was very dangerous, owing to the admission of atmospheric air within them; and one of the cases which he brought in illustration led to a good deal of good-humored criticism,—that of a man who died from inflammation of the pericardium. In the detail of the case, it appeared that “this shut sac had been opened by the thrust of a red-hot poker!” Most of us thought that there was sufficient cause of inflammation, independently of the admission of air, which doctrine was then the Doctor’s hobby. He carried his theory so far, that he conceived it possible that the Cæsarean section might be performed with safety, if done under water. But still, by those instances, you see how he meant to argue against the practice of opening the sac of a hernia.

I was about to read another case, but that will bring up other questions, and questions of great importance ; I will therefore defer it till I next have the pleasure of seeing you.

LECTURE II.

We were engaged in a very important matter—on the treatment in these cases of hernia. You ought to be obliged to those gentlemen who, by their publications, keep our interest alive to questions of practice. I ought to recollect that, although the rule is in my mind settled, you have your experience to gain, and must arrive at a perfect conviction of the propriety of certain measures, by attentive and repeated consideration of the subject.

On entering on this, and, indeed, on all important practical questions, we ought to lay the foundation of our reasoning on the facts ascertained by the examination of the dead body. Without fear of wearing you by repetition, I once more state to you what are the appearances in the abdomen, when a person dies of hernia—dies unrelieved by any operation. When you open the abdominal cavity, you find the intestines inordinately distended, inflamed, and discolored. You find not only that the surface of the intestines is inflamed, but also the peritoneal lining of the abdomen ; and you discover serum in the cavity of the abdomen, and flakes of coagulated lymph, if not pus. When you handle the intestines, and turn them aside, you perceive that it is the portions which are distended which are most inflamed, whilst others not distended are comparatively blanched. Investigating more particularly, and tracing the canal, beginning with the stomach, and so following it down along the duodenum and small intestine, you find that that part of the canal which extends from the stomach to the portion strangulated, is distended and inflamed, and that the portion reaching from the part strangulated to the rectum, is in an opposite, or, at least, in a contracted condition. The part above is of a dark lake or reddish brown ; the part immediately below the stricture green and black ; the lower part of the canal is little changed.

These appearances prove what is the cause of death. The intestine being obstructed, and the contents accumulating above, the canal is stimulated. The excitement increases the secretion, and the intestine, thus loaded, works until inflammation is the consequence. There is an additional cause of distress, and pain, and inflammation in the nip upon the gut, at the neck of the sac ; and sometimes we can trace mischief to that cause. But in neglected cases, when the symptoms have been permitted to take their course, my first statement is most correct. I begin with this statement of the condition of the parts within the abdomen, because, happily for those patients whose cases are under consideration, they have survived the operation ; and therefore we have not, in the present instances, the data on which we must reason. When the patient dies after the operation has been performed, you may find the bowels more empty, but inflamed, with a knot of agglutinated intestines near the groin, and the peritoneum lining the abdominal muscles exhibiting the signs of having partaken of the inflammation. And pray remember that this condition of inflamed bowels is the state most highly dangerous to the dissector who has a cut finger.

The next thing for your consideration is the cause of strangulation. At the last lecture, in considering the subject as stated by Mr. Guthrie, I suggested to you that the circumstance of muscularity in the stricture may answer the purposes of argument in inguinal hernia ; but I stated, and I trust stated correctly, that the symptoms are the same in all herniæ ; that the spasm, the intermission of pain, and the return of it after a cessation, were characteristic of all herniæ ; and that therefore it did not serve as an explanation to represent the action of the transversalis muscle as accounting for the peculiarities of the symptoms. When the intestine is first pushed down, it is not strangulated, because the finger-like projection of the peritoneum, which is thrust through the opening in the walls, does not, as yet, permit distention of the intestine ; and if the intestine be not distended, it is immediately withdrawn—there is nothing to prevent it. There is every reason to believe that a hernia forms gradually, by successive efforts pushing a portion of intestine or omentum into the finger-like process of the peritoneum, until both sac and intestine are thrust through the opening. When the intestine has escaped

through the passage of the abdominal walls, then it is in danger of incarceration. I do not believe that any hernia forms at once, but that the bowels force against the peritoneum, and press this membrane into the passage; moulding it, and forming the finger-like process, which I have often found and preserved: at last a powerful and sudden effort pushes the gut quite through, and then strangulation may take place very quickly.

The tumor is the more dangerous, the smaller the portion of intestine. Mark, I beg you, the true difference between an old and large rupture, and a small and recent rupture. You will have a patient come to you with an imperfection in different parts of the abdominal walls; so that if you make him cough, there is a protrusion, perhaps, at the inguinal passage; another in some part of the belly; a third at the umbilicus. Such tumors gradually enlarge, and come down more and more; but the man is in no danger from strangulation. These ruptures are easily reduced, and often difficult to retain; whereas, if a horse soldier be mounting suddenly into the saddle, and in the moment of exertion feel a pain, and if he be obliged to leave the ranks, and the surgeon find a hard tumor in the groin thus suddenly formed, the man is in imminent danger, and a few hours will decide his fate. It is the same with a sailor in the excitement of an engagement, who, putting his foot on the stock of the cannon, pulls with all his strength at the rope, if in that moment of exertion, when the abdominal muscles are compressing the viscera, there slip down a portion of intestine, it is strangulated almost immediately, and his fate determined, although he may live for days after it.

Now there are sufficient reasons for this on mechanical principles: it is not a disease, and the terms acute and chronic are not applicable; for there is no analogy here with acute or chronic diseases. When the portion of intestine is by violence forced suddenly beyond the ring, or under the Poupart ligament, it has escaped from the abdomen. Now I entreat you to observe the importance of this word—*escaped*: by this you understand that there is a certain pressure on the parts within the abdominal walls; but that the fold of intestine has been forced out into the loose cellular texture, and escapes pressure, so that presently it undergoes distention! What with the suddenness of the distention, and the narrowness of the passage, the gut rapidly changes its condition; first to be incarcerated, where it cannot be reduced, and then to be strangulated, where the circulation is stopped. I will consider the case under three heads: 1, the distention of the gut; 2, the obstruction of the circulation in the gut; and, 3, the collection of serum between the gut and the sac.

Suppose a large portion of intestine has descended, the fæces gradually accumulate in it; by and by, the part of the intestine that is in the hernial sac is distended; of the fæces that are collected there, none can come out,—the turn is too acute; and the consequence of this is that no part of the contents of the intestinal canal can pass beyond the hernia. This is not the state of strangulation,—it is the state of incarceration, by the filling or distention of that part of the intestine that is within the sac.

Again, with regard to the mucus,—the secretion from the internal surface of the intestine itself: I have seen an operation in which the intestine has burst: I have seen another case, in which a small nucleus of intestine was wounded by the surgeon's knife; and what do you think came out?—only clear mucus. You can easily understand, that when a portion of intestine is down in the sac, the stricture may not be so tight as to produce strangulation, and yet be sufficient to impede the return of the blood by the veins of the intestine. There is then a gradual effusion; first, between the coats of the intestine; secondly, a secretion of mucus within the intestine; and, lastly, serum is exuded from its peritoneal surface. By this you perceive that over-distention of the intestine may take place by the dropping down of feculent matter from the canal, and by mucus secreted from its internal surface. Hence, you see that strangulation occurs, almost as a matter of necessity, in these circumstances; that the danger is increased even by the secretion of the intestine itself; and that, what with the infiltration into the coats of the intestine, and the secretion of mucus into its cavity, matters get worse and worse; and the intestine, as it is thus distended and thickened, is drawn tighter and tighter against the stricture.

The next head is *the serum*.—Now, I observed to you, at the last lecture, (and you saw the

occurrence in the operation,) that the moment you open the proper sac, the serum spouts out; and you judge much of the condition of the parts, and of the likelihood of effecting a cure, by the state of this fluid. You are pleased to find that it is transparent; you are disappointed, if it be dark and bloody. What I was going more particularly to say, however, is, that this secretion of serum, whether it proceed from the inner surface of the proper sac, or from the surface of the intestine, is often the means of counteracting the distention of the gut, and retarding the advance of alarming symptoms; for the secretion into the sac, and without the intestine, prevents the sudden distention of the intestine, and that, of course, prevents the strangulation. Further, on this head, I request you to observe, that there is another point of practice in which you must take the secreted serum into your consideration. You are sometimes deceived in the operation of the taxis, because, when you press for a length of time, you say, I am succeeding, for the tumor is diminishing; but, alas! it is not a diminution of the distended intestine that you are producing; you are merely reducing the amount of serous fluid external to the gut. It is highly important that you should notice this circumstance, for it is very apt to make you believe that you leave the patient in safety, when the little knuckle of the intestine is just as it was before, or in rather a worse condition, being more subject to have its vessels gorged, and to run into the condition of strangulation.

The next circumstance that we observe in the operation, is a leather-like thickening of the intestine itself. There can be nothing more unlike than the portion of intestine which you see on dissecting a body, or in its natural condition, when alive, and that portion which you have presented to you in the operation for hernia. It is not only discolored by the pressure on the veins causing a remora of the blood, but it becomes leathery, by the secretion within the coats. You know that the veins are compressed before the arteries, as they are more passive, and the arteries are active; just as the ribbon, in tying up the arm for bleeding, compresses the veins, and leaves the arteries pulsating, so does the stricture act on the intestines.

This consideration will point out to you how the gut strangulates itself; that, by the infiltration and distention of its coats, although the stricture be no narrower, the intestine becomes more compressed, and its circulation more and more impeded; so that it acquires a dark purple color, in addition to the increased thickness of its coats.

I think, I before mentioned, as an agreeable circumstance, that when you have undone the stricture, you find that almost immediately this dark color changes to a brighter hue. This I would attribute to the freedom of the circulation being restored to the intestine, rather than to the influence of the atmosphere on the blood in the vessels; because I mark this difference, that, in operating when too late, there is no such change produced in the color; whereas, if you operate at a happier time, on removing the stricture by a little touch of the knife, and restoring the freedom of the circulation, you see a brighter color in the gut.

So far I have endeavored to place before you the appearances on dissection within the abdomen, and the appearances which you witness during the operation; and I will now direct your attention to a case of *inguinal hernia*.

"Mary Toser, 29 years of age, a cook, unmarried, was admitted into Bird's Ward, on the 8th January, at two o'clock in the afternoon, with hernia on the right side. The tumor had been down thirty hours previous to her admission. She states, that about four months ago, on lifting a heavy pot, she found something give way, and, at the same time, felt a tumor, about the size of a nutmeg, in the groin; but she suffered no inconvenience till the 7th January: at eight o'clock on that day, whilst scrubbing the floor, she over-reached herself, and immediately felt great pain in the part, with sickness: after this, she found the swelling much increased in size. It appears, also, that she had received the assistance of a surgeon, and the taxis had been employed previous to her admission. The bowels had not been opened since the morning before the accident.

This is the condition in which she is brought in; she vomits, and the matter brought up is quite clear; there is pain, and much distention of the abdomen; the tumor is full and hard; the pulse a little excited, but only 76. Attempts were again made, by the house surgeon, to reduce

[Continued in No. 36.]

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
BY GRANVILLE SHARP PATTISON, M.D.
Prof. of Anat. in Jefferson Med. Col., Philada.
ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, AUGUST 13, 1834.

No. 36.

(Continued from p. 304.)

the hernia: she was put into the warm bath, bled to syncope, but without succeeding in the taxis. The surgeon of the week being sent for, and finding all attempts to reduce the hernia ineffectual, determined to operate. The operation was performed at four o'clock. Nothing particular was observed during it; the stricture was divided with great ease, and the intestine returned. After being in bed a short time, she had a dose of castor oil with tincture of senna. At 8 o'clock in the evening, the bowels not being opened, an injection was administered. At ten o'clock she described herself as being quite easy: the pain was much less in the abdomen. There was a slight evacuation after the injection. She became sick; the pulse 100, rather sharp; the skin soft; the tongue clean and moist; the pain in the abdomen chiefly confined to the lower part. Twenty leeches were applied to the abdomen, and the castor-oil and tincture of senna were repeated. In the morning, the bowels had been four times copiously opened, and from that time every thing went on prosperously."

I do not know that I have any thing to say about the operation, farther than, what you saw—that it went on according to rule. Yet I believe there was no person at the operation who was not exceedingly surprised to observe the extraordinary fineness of the sac. Though this occurs in the femoral hernia, I do not know that I ever saw so fine and transparent a layer of the peritoneum forming a sac as in this inguinal hernia. I offered you the practical inference on this subject in my last lecture.

I beg leave to direct your attention to the *taxis*. I need not repeat the common rule, as to placing the patient in a relaxed position, so that there shall be no resistance to your effort from the abdominal muscles—that the body should lie curved, the shoulders and hips supported, and the spine sinking so that the muscles may be relaxed. You attend also to the position of the thigh—that it is raised, and the toe turned in: in short, you are careful both to relax the walls of the abdomen and the connexion between the fascia of the thigh and Poupart's ligament; (a remark, however, that especially regards the femoral hernia.) You then press upon the intestine, but do not at once attempt to push it up; for it is utterly impossible to do this. What is the object? Is it to compress the intestine gently; for you remember that it has escaped—that is to say, that there is more pressure on the parts within than on the small portion without; you equalize, therefore, the pressure; but you do more—you empty the included gut of its contents; and, in order to accomplish this, besides squeezing, you stroke the tumor downwards, in order to stretch the neck of the sack. If you push the whole tumor up, you twist the intestine at the neck of the sac, and make it utterly impossible to empty the gut, or to re-

duce it. The object is to compress the tumor gently and equally, in order to get the contents of the intestine which is in the sac out of that portion, and into the part which is within the abdomen. Accordingly, as soon as you hear a little gurgling, as if the intestine were emptying itself, you know that you are about to succeed, because you have subdued the angle of inflection which the intestine makes around the stricture. You have now to make the intestine itself empty, and then, by a little more urgency of the finger, it is excited to draw itself into the abdomen.

Bleeding is very proper. Not having succeeded in the taxis at first, the patient should be bled. I would say bleed, because the principle danger is from inflammation. But they say, "bleed *ad deliquium*:" and this is recommended on the idea of there being spasm in the neck of the sack. I do not, however, object to bleeding even to this extent; seeing it is right to take away blood, whatever the theory may be. As to the application of a cold lotion, or ice, I say it is wasting time. The warm-bath is another useful means for relieving pain and spasm in the bowels; and I have explained to you how spasm, by drawing the gut and producing tormina, does harm: but do not employ it without bleeding, because then there is too much excitement. After bleeding, the warm-bath is favorable to reduction; and if you must wait, it certainly tends to keep off inflammation. A tobacco clyster has been recommended, but I never think of using it, for it is dangerous—it weakens too much; and the alleged object of employing it still is to take off spasm from the ring. I know not what can be the advantage of tobacco, unless it be to reduce the patient to that condition that he himself supposes it is all over with him; and so he lets you do what you think good. If it reduce him at once to that state of sickness—to that apparent approach of death that the friends permit you to operate—there is advantage; but recollect this may be carried too far, and a patient has actually died under the influence of the poison. The main objection to all these successive means is, that precious time is lost.

In the next place as to clysters, you would not give purgatives with the idea of withdrawing the intestine from the sac, because it cannot be withdrawn when in a state of distention: you must remember that drawing the intestine in that way is pulling it where it is tender, and lying against the sharp edge of the stricture. What is worse than all, by purgative medicines we excite the upper portion of the intestine, and accumulate the secretions in it; thence causing more twisting of the bowels, contraction, pain and inflammation. But there is not the same objection to large clysters, because they only excite in a certain degree; and when the excitement comes on, the intestine is immediately relieved of its contents, and there is a period of rest to the upper part, and a relief of the pain which proceeds from the twisting and working of the bowels. So far clysters are harmless; but we cannot say that any thing is harmless which leads to delay, and I would advise you to trust neither to position, nor to bleeding, nor to bathing, nor to clysters, nor to tobacco, nor to any thing but your own hand. All these modes of reducing a hernia are nothing compared with the well-directed and careful efforts of the surgeon's hand; and when that fails, urge the operation immediately. Do not wait for the effect of these remedies; they are nothing. The moment that you find the tumor is hard, incompressible, not yielding in the slightest degree; that there is no gurgling, no diminution of the convexity and hardness, not the slightest appearance of getting the contents of the intestine out, urge with all your eloquence the propriety of the operation; for there is little danger if the operation be performed at the proper time—the greatest possible danger if it be delayed after a certain time.

But to show you that I am not carried away by any thing like theory, I shall tell you what occurred to me. A gentleman of large fortune, and of consequence from his position in society, felt a tumor in the groin. He lived 30 miles out of town, and he conceived that this tumor was a bubo: what reason he had for this notion is not our concern. He threw himself into the mail-coach that was passing his gate, and came up to town. When I saw him, and felt the tumor, I said that it was a hernia, but I could not convince him of it. He was drinking his cup of tea; but I saw him occasionally, from time to time, go into a back parlor, and I heard him discharging the contents of his stomach into a basin, and then he came back

again. Friends came in, and he was complimented on his looks; he was excited. I explained to him his danger; I begged that he might have further assistance, for I saw that I was not making the impression on him that was necessary; he had no conception of an operation being required. The celebrated Mr. Cline, who was then in the zenith of his great practice, was called in. Here was a man who was allowed by all to be at the head of his profession; he saw the patient, and he said, "I am not sure that there is a hernia here at all." Of course, I lost confidence in myself; for Mr. Cline I considered, and justly considered, the highest authority. I was quite thrown out. He appointed a meeting for the next day; and on the next day he said, "I believe you are right, there is a hernia; but the symptoms do not press." I had reconsidered the whole case, and had prepared for the operation. You will say it was weakness in me to yield to this opinion; no, it was right. We appointed to meet the following day, and on that next day the patient was dead. On dissection of the tumor, there was first found an inguinal hernia, and under that a crural hernia, containing a small portion of intestine, not larger than my knuckle, like a ripe cherry, but darker, and in a state of complete strangulation.

Now this happens from time to time. The portion of intestine is nipped and strangulated, and that without any very urgent symptoms. What is the meaning of this? You see a patient with all the characters of a strangulated gut; and you expect that he will die, perhaps under your own hand. This was the expectation in the very first case of hernia that I ever operated upon. All my colleagues said, "It is right that the operation should be performed, but it is hard for a young man to operate where there is no hope of success." The woman was sick, faint, and frantic; she was laid on the operating table by force—force, not against her reason, but against her delirious efforts; yet the operation was successful; whereas, in many cases that I could mention, there was no such prolonged suffering, no violence of symptoms, but still there was mortification of the gut. I say, then, it is most important for you to distinguish what is really meant by the symptoms of strangulation. I maintain, that there are no symptoms of strangulation; and I say that the symptoms of hernia are the symptoms of distended and obstructed bowels, and that they are precisely the same that we have from stricture of the bowel. I can give you an instance of it.

I attended an old gentleman, a physician, who had a cancer in the rectum; and when I saw him his abdomen was greatly distended. He had had no evacuation; his pulse was quick, but weak; he was vomiting continually; he had hiccup; he had the *facies hippocratica*; he had all the symptoms of strangulated hernia. I passed an ivory tube through the ulcerated rectum, and threw up an injection, which injection brought away a quantity of yellow liquid matter, which filled a large hand-basin. The next morning he was well; not one of the symptoms remained; his countenance was better; the hiccup was gone; the distention of the abdomen was removed; he could pass urine without the catheter; the pulse recovered, and he lived two months after. He died of his cancer; but he was saved from immediate death as a consequence of over-excitement of the intestinal canal. Now I say it is owing to distention of the canal, in that portion of it between the stricture and the stomach, that you have what you term the violent and decided symptoms of strangulation; and if a man vomit easily, discharge the contents of his stomach from time to time, and the upper portion of the intestine be thus relieved by an anti-peristaltic motion, he may perhaps survive a long time, and may recover, if the intestine has been engaged and distended, but not strangulated. But if, instead of the gut being incarcerated, it be strangulated, that is, deprived of circulation through it, how long will he live? The symptoms which you find enumerated in your books are not arising directly from the mortification, or from the inflammation, or from the hurt inflicted on the portion of gut. Here is the source of discrepancy, then; here is the cause of the apparent contradiction in the history of cases; that in some you have violent symptoms, and yet the patient does well, while in others you operate where there are no violent symptoms, and the patient dies.

Now let us come to the question, how long you are to wait. Why, not a moment. Our very first authority was Mr. Cline; and the surgeon I would most trust to, after Mr. Cline, is Mr. Cline's colleague; and what has he told us? That if the person be not relieved in four or six hours—I forget which—he would have the operation performed. Why wait four hours:

What is going on during the four hours, if there be strangulation? What is strangulation? Strangulation, as distinguished from incarceration, is that condition where the intestine is so tightly embraced that there is no circulation in it. If that be strangulation, how long will the intestine live after it has commenced? Will it live half an hour? I do not know how long it may live; I should not think more than half an hour. Here is the point to which I have always wished my pupils to address themselves: first, to get a right notion of the symptoms; then they will be competent to ascertain what is really meant by strangulation; and if it be meant by that term that the circulation is cut off, it has to be determined how long should we wait before we operate? You see, then, that in this uncertainty you have to trust to the hand, to the feeling of the part, in judging of the possibility or probability of the reduction of the hernia; and if you cannot reduce it, do not wait for symptoms; for symptoms are most deceptive here. Urge an immediate operation.

Having arrived at this part of the session, I think I have completed more than I promised. It is now the time at which, in justice to you, to my colleagues, and myself, I think that some other ought to occupy this place; and I therefore hope that one of my colleagues will meet you this day week.

LIGATURE OF THE ABDOMINAL AORTA.

(Communicated by Sir James Mac Grigor, Bart.)

Cape of Good Hope, Jan 27, 1834.

MY DEAR SIR,—I have just time to inform you that I tied the abdominal aorta last night, in a Portuguese man, in a desperate case of aneurism of the right external iliac artery, which reached as high as the umbilicus, and more than half way across the lower part of the abdomen. The man was in the greatest agony from the pressure of the tumor upon the nerves leading to the limb, and mortification of the limb was rapidly approaching. To attempt any thing on the right side was out of the question; so I cut directly for the aorta on the left side, nearly in the mode suggested by Guthrie and others, and effected my purpose without more difficulty than was to be anticipated. It is now nine hours after the operation, and the man is doing so well as really to give some hopes of recovery. I shall give you the case hereafter, whatever be the result, with my reasons for undertaking this operation; which has hitherto been considered of so awful a nature. At present I have not time to add more, as a mail by a fast sailing ship is just closing.—Ever sincerely yours,

JNO. MURRAY.

The patient died twenty-three hours after the operation. Further details are expected.

CASE OF POISONING BY ARSENIOUS ACID; WITH DISSECTION.—BY JOHN K. BOOTH, M.D.

One of the Physicians of the Birmingham General Hospital, and member of the Royal College of Physicians, London.

Elizabeth Martin, æt. 24, a married woman, was brought into the hospital on the evening of the 24th of March, at about half past seven o'clock, having, by the report of those who conveyed her, swallowed half an ounce of arsenic, about two hours previously. She had taken an emetic, a little more than hour after the poison, which acted promptly, bringing away a large quantity of fluid from her stomach, in which small gritty particles of arsenic were palpably noticed by the medical attendant. Her countenance is now pallid, extremities cold, eyes suffused, pupils somewhat dilated, but contracting on the approach of light. She speaks now and then, with effort, but appears insensible. Pulse 90, and very compressible.

She refused to swallow mucilaginous diluents, and consequently the stomach pump was used. The stomach was filled and emptied six or seven times with soap and water, and a little carbonate of soda. A mixture of castor and olive oil was then injected, but symptoms of collapse had already come on, the pulse became very weak, the pupils contracted and fixed, the surface cold, and she had violent purging. She lingered till midnight and expired.

Post mortem appearances 16 hours after death.—The vessels of the brain were gorged with dark blood. There was slight subarachnoid serous effusion, but the ventricles were empty. The substance of the brain was firm, that of the cerebellum firmer than usual.

The lungs were in a state of congestion sufficient to have completely impeded respiration. The heart was not particularly loaded; the cavities of the right side being nearly empty.

The œsophagus downwards, to within half an inch of the cardiac orifice, was inflamed. The whole internal surface of the stomach was of an intense scarlet color, and the mucous membrane was constricted into rugæ, to which some of the arsenic, enveloped in a viscid, tenacious mucus, adhered in two places. The inflammation of the stomach terminated at the entrance of the œsophagus, by a well defined limit. Numerous dark spots and small dark streaks were universally sprinkled over the internal surface, but particularly at the cardiac extremity of the stomach.

There was redness and increased vascularity of the duodenum, jejunum, and ileum. The colon was exceedingly constricted, barely admitting the passage of a finger. The solitary glands were more prominent than natural, and of a pale appearance. The veins on the inner surface of the cæcum and commencement of the colon, had a very beautiful arborescent appearance, from congestion; and this was still more conspicuous on the mucous membrane of the bladder.

The kidneys were of a darker hue than natural. The spleen and liver healthy, but the vessels of the latter were turgid, and its size rather large.

Arsenious acid is extensively employed in this town, is easily obtained, and its fatal properties are popularly familiar. Hence it is not surprising that it should be more frequently resorted to than any other of the poisons for the destruction of life. To no practitioner of medicine, but more especially not to any one whose duties may connect him with a large manufacturing community, can the present subject ever seem trite or unimportant.

In treating cases of arsenious poison, the efforts of the *vis medicatrix naturæ* and the precepts of practice alike instruct us, with all possible promptitude, to evacuate the stomach by vomiting. This is the primary indication, and on its *effectual* fulfilment, I would say, the rescue of life depends. It is, however, not often possible: sometimes a previously loaded stomach may envelop in its contents the corrosive ingredient, and facilitate its ejection by vomiting. A medical friend informs me that he witnessed a case wherein, *after a full meal*, an ounce of corrosive sublimate had been swallowed; and by timely vomiting, the subject of this rash act escaped with comparative impunity. We can, so far as my experience instructs me, seldom hope, in cases of arsenious poisoning, to divest the stomach, under any circumstances, by vomiting, so effectually of the noxious particles of the acid, as to supersede other subsequent indications of treatment, the next of which will be to remove or extinguish, by the aid of the stomach pump and *proper* fluids, the remaining poison. Here then, a question may be raised as to the proper fluid. I would say lime-water: certainly not the alkaline solutions. The latter were, I am of course aware, adopted, in the treatment of the case prefixed to these observations, by my colleague.

Indeed, distinguished authorities seem opposed to each other on this point of treatment. Dr. Paris (*Pharmacologia*, edit. 8th, page 193), enforces the use of lime water, and deprecates that of alkaline solutions, excepting (see his note) under circumstances and limitations which would apparently reduce the exception to little more than hypothetical. Dr. Christison (*Treatise on Poisons*, edit. 2d, p. 320) regards the arsenite of lime as useless, because, although insoluble in water, it is so soluble in the juices of the stomach as to allow of the introduction of a sufficient quantity of the poison into the blood to prove fatal. Orfila admits the efficacy of lime water, if the poison be in a liquid state:—"Il se forme dans ce cas un arsenite de chaux insoluble qui n'agit que tres faiblement." He does not mention the action of the gastric juices as interfering with this result; on the contrary, he continues:—"Nous avons donne a des petits chiens jusqu'a 4 grains de ce poison liquide: nous leur avons fait avaler de l'eau de

chaux, et ils n'en ont pas été incommodes." (Toxicologie, 3me. edit. p. 441.) M. Orfila, however, adds:—"Comme c'est presque toujours à l'état solide que l'on prend cette substance veneneuse, l'utilité de l'eau de chaux est presque nulle." It is evident authorities are divided as to the employment of lime water in fulfilling the second indication of treatment. Its use is discouraged by Dr. Christison, on grounds at variance with the result of M. Orfila's experiments, as to the action of the juices of the stomach. No interference, no counter-action, was observed by Orfila from the cause alledged by Dr. Christison, on apparently chemical grounds. No one, however, can possibly be better aware than Dr. Christison himself of the change induced in the quantity and quality of the secretions of organs, when acted upon by violent irritants; and it is consequently not determinable, *a priori*, what combinations will take place in the stomach under such circumstances. To the chemical objection stated by Dr. Christison, I would beg to oppose the results of the following simple experiments, which tend to prove chemically that arsenious acid may be changed by combination in the stomach, to arsenite of lime, if its juices be saturated by carbonate of lime.

Experiments.—1. One grain of arsenious acid was added to two ounces of lime water, and gently agitated. The arsenic was soon entirely changed into a substance that was suspended or floated in the liquid, being a precipitate of arsenite of lime. Muriatic acid, and dilute acetic acid, forming the acid properties of the gastric juice, were then added; they redissolved the precipitate immediately.

A portion of the preceding mixture of muriatic and dilute acetic acids was then saturated with chalk, and filtered. This solution produced *no effect* on the arsenite of lime.

Reversing the order of the experiment—

2. One grain of arsenious acid was put into a phial containing some of the saturated (let it for distinction be termed) *gastric* acids; viz. the muriatic and dilute acetic acid. No effect was produced. Lime water was then added, and the same result, as in the first experiment, ensued: the arsenious acid was changed into a substance which floated in the liquid, being a precipitate of arsenite of lime, and appeared rather more dense than in the former experiment.

These experiments tend to show, that, by simply adding creta præparata to the lime water employed in washing out the stomach, we may entirely obviate the chemical objection opposed by Dr. Christison to its use. We are not to forget, too, that although primarily, it is not merely to the *stomach* that the deleterious contact of the poison is extended: we can trace its presence and effects throughout the whole alimentary tube. It is, therefore, a desideratum to obviate its absorption by destroying, and not increasing, its solubility: lime water has certainly the former, while the alkaline solutions have as certainly the latter tendency; and are directly calculated, therefore, to increase the deleterious influence of the arsenic. In a great many instances I know all efforts may be futile. The arsenious acid often imbeds itself in the thick tenacious mucous adhering to the inner surface of the stomach, and defies all solvents to reach it. An instance of this description is afforded in the case and dissection prefixed to these observations. I have noticed the same fact in others. Dr. Roupel, also, in his plates in illustration of the effects of poisons, gives another. M. Orfila (Loc. Cit. p. 382) mentions a remarkable instance of a *cyst*, in which arsenious acid was contained in cells. Dupuytren considered the formation of this cyst to have been the result of two poisonings antecedent to that which terminated the person's life. The sequelæ, even in cases of fortunate rescue of the patient from impending destruction, are always wretched; but still it is morally incumbent on the physician to omit no means or effort to save and prolong life: and in this view, I consider the choice of the fluid to be employed as not a matter of indifference, or unworthy of research.

J. K. BOOTH.

Birmingham, April 5, 1834.

CASE OF HYPOSPADIA.—BY M. DUPUYTREN.

A child, who labored under a malformation of the urethra, was brought to the Hotel Dieu in September last. The orifice of the urethra was placed about an inch and a half below the extremity of the glans: the latter was imperforate. When the urine flowed, it issued perpendicularly from the penis. The jet was small, and the evacuation incomplete and requiring an effort. The bladder was never perfectly empty, and the little patient could make water whenever he was desired. Such a position of the orifice of the urethra must render the individual unprolific: the semen could not be ejected towards the neck of the uterus; and for this reason, together with a desire to remove, if possible, the awkward condition of the parts, M. Dupuytren proposed to form an artificial prolongation of the urinary passage, so that it might terminate in its natural situation. His purpose was to effect this by the white-heat cautery *en roseau*, to be applied along the track of the urethra, from its extremity to its accidental opening. But the parents refused to permit the operation.

Hypospadia has been noticed by many of the more ancient surgeons, and various methods have been recommended by way of remedy. The treatment must evidently be very difficult, if not impossible, when the opening in the passage is far below the glans; and it has sometimes been so low as to raise doubts as to the sex of the party—when, for example, the urethra opens in front of the scrotum, or in the perineum, Paulus Ægineta recommended that the end of the penis, beyond the orifice, should be amputated. Galen, Albucasis, Fabricius ab Aquapendente, and Dionis, advised that an artificial passage should be made through the glans, and a leaden bougie introduced and left there for some time. By means of small clean incisions, and bringing the lips together, cicatrization of the opening was effected, and a canula remained in the passage till the cure was complete. But modern surgeons have been pretty generally opposed to any operation of the kind. Sabatier speaks positively against it; and Richerand agrees with him in thinking that any canal so formed must necessarily become obliterated. M. Dupuytren, however, who is of opinion that individuals affected with hypospadia are for the most part barren, has ventured to depart from the precept and practice of eminent authorities, and, in one instance at least, has had reason to be satisfied with his determination.

Twelve or fifteen years ago, a child, the heir of a rich family (much interested, of course, in his preservation), was brought to M. Dupuytren. Hypospadia was the complaint sought to be remedied. There was, at the root of the penis, a very small opening, by which all the urine passed slowly and with difficulty. From this point to the extremity of the glans there was no trace of an urethra. At the request of the parents, M. Dupuytren undertook a mode of treatment. He introduced a delicate trochar, from the anterior inferior part of the glans, along the track which a natural passage would follow, and pushed the instrument until it reached the accidental opening. He then cauterized the passage with the white-heat cautery *en roseau*. Very violent inflammation ensued, almost threatening gangrene; but by the proper use of antiphlogistics, this was subdued. An abundant suppuration followed. A gum-elastic catheter was introduced along the artificial passage, and continued into the bladder: it was kept there for three months. The accidental opening was several times touched with nitrate of silver, and was ultimately closed. The urine at the end of this time, flowed freely by the new passage. But M. Dupuytren recommended that the catheter should still be employed, till the cure was complete and satisfactory. The child was then removed from Paris, and M. Dupuytren has reason to believe that every thing turned out successfully in the cure.

When hypospadia is carried to an extreme degree, it sometimes leads to strange mistakes, touching the sex of the individual. It constitutes a sort of supposed hermaphroditism, when its seat is in the perineum; the scrotum is then divided into separate folds, which resemble the labia, each of the folds containing a testicle; the penis, if not well developed, simulates the clitoris; and the opening of the urethra is taken for the orifice of the vagina.

M. Dupuytren knew a most curious case of this kind. A person affected with hypospadia was married for fifteen or twenty years, and during that period was treated as a female. Sexual intercourse was regularly effected by the canal of the urethra; nor was it till that length of time had elapsed that it was discovered the individual was a man.—*Journal Hebdomadaire*.

THE following table of the deaths occurring in London, from the 11th Dec. 1832, to Dec. 10th, 1833, is interesting. As the diseases are given, our readers, who are curious in these matters, may compare the frequency of certain diseases as occurring in England and the United States :—

A GENERAL BILL OF THE BURIALS, WITHIN THE CITY OF LONDON, AND BILLS OF MORTALITY, FROM DEC. 11, 1832, TO DEC. 10, 1833.

Diseases and Casualties of the Year.

<i>Diseases.</i>									
Abscess	-	-	-	131	Brain	-	-	-	236
Age and Debility	-	-	-	2952	Lungs and Pleura	-	-	-	548
Apoplexy	-	-	-	442	Influenza	-	-	-	135
Asthma	-	-	-	1265	Insanity	-	-	-	142
Cancer	-	-	-	105	Jaundice	-	-	-	55
Childbirth	-	-	-	275	Jaw, locked	-	-	-	6
Cholera	-	-	-	1150	Liver, diseased	-	-	-	302
Consumption	-	-	-	4355	Measles	-	-	-	524
Constipation of the bowels	-	-	-	26	Miscarriage	-	-	-	20
Convulsions	-	-	-	2140	Mortification	-	-	-	241
Croup	-	-	-	151	Paralysis	-	-	-	212
Dentition or teething	-	-	-	473	Rheumatism	-	-	-	37
Diabetes	-	-	-	6	Scrofula	-	-	-	19
Diarrhœa	-	-	-	19	Small-pox	-	-	-	574
Dropsy	-	-	-	860	Sore Throat and Quinsy	-	-	-	57
on the Brain	-	-	-	860	Spasm	-	-	-	79
on the Chest	-	-	-	100	Stone and Gravel	-	-	-	19
Dysentery	-	-	-	5	Stricture	-	-	-	16
Epilepsy	-	-	-	8	Thrush	-	-	-	109
Erysipelas	-	-	-	82	Tumor	-	-	-	43
Fever	-	-	-	530	Venereal	-	-	-	6
(Intermittent or Ague)	-	-	-	13	Worms	-	-	-	2
(Scarlet)	-	-	-	481	Unknown Causes	-	-	-	887
(Typhus)	-	-	-	100	Stillborn	-	-	-	934
Fistula	-	-	-	3	<i>Casualties.</i>				
Gout	-	-	-	53	Drowned	-	-	-	108
Hæmorrhage	-	-	-	42	Died by Visitation of God	-	-	-	39
Heart diseased	-	-	-	145	Excessive Drinking	-	-	-	5
Hernia	-	-	-	29	Found Dead	-	-	-	8
Hooping-cough	-	-	-	1040	Killed by various Accidents	-	-	-	169
Hydrophobia	-	-	-	4	Murdered	-	-	-	4
Indigestion	-	-	-	9	Poisoned	-	-	-	6
Inflammation	-	-	-	2607	Suicides	-	-	-	55
Bowels and Stomach	-	-	-	499					
Buried { Males - - - - 13,319 }					Total 26,577				
{ Females - - - - 13,258 }									

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, AUGUST 20, 1834.

No. 37.

From the Journal of Medicine and Surgery, (Hebdom.) Oct. 1833.

OPERATION FOR FISTULA IN ANO.

Serious accidents dissipated by a hemorrhoidal flux.—Some remarkable circumstances attending the pathological anatomy of this disease, &c.—Reflexions.

BY A. VIDAL, DE CASSIS, SURGEON OF THE BUREAU CENTRAL.

M. B.—, cabinet maker, aged 36 years, has always been thin, pale, and melancholy. He frequently has light *attacks of the nerves*,* which participate of hysteria and epilepsy. He has a spitting of blood, but not much cough. He often suffers from *a burning in the breast*. He had moreover an attack of the cholera, when that epidemic first appeared in Paris; the principal symptoms of which were soon arrested, but the convalescence was protracted. He felt one day a pain in the perineum, which was augmented by the emission of urine. Upon the painful point there arose a tumor as large as a hazel nut; its progress was slow; it had reached the volume of a large chestnut, when it burst: discharging then a very serous pus without odor. The patient was relieved, and became less melancholy. The opening did not close, but continued to discharge so much matter that M. B. was obliged to defend himself against it by suitable dressings. The attending physician, looking upon the tumor as critical, and fearing for the lungs, persuaded the patient that it was necessary, and should not be disturbed. To this M. B. the more readily consented, as his peculiarity of character made him fear an operation.

A year passed away, the suppuration became more abundant; the pain in urinating more severe, and followed by a weight towards the anus; *the burning in the breast* increased; and he became much attenuated. M. B. then decided to consult a surgeon, and presented himself to one.

Two lines anterior to the anus a part of the skin of the perineum was of a deep red, thin, and loose, with a very small fistulous opening in the centre, into which I introduced a stylet in various directions: anteriorly it penetrated towards the bulb, posteriorly towards the anus, and laterally towards the ischia. The age of the disease made me suspect a perforation of the neighboring passages. The patient affirmed that he never had blennorrhagia, that he always urinated very freely, and that he had never had a stripe upon the perineum. Nevertheless I introduced the catheter, and endeavored to touch it with the stylet in the fistula. I failed: the two instruments were separated by a considerable quantity of the soft parts. Besides which no part of the discharge indicated any mixture of urine.

* The italicized expressions are those of the patient himself.

I then directed my researches towards the rectum. There were some hemorrhoids which had never discharged any thing: two, which were large and withered, were external. The smaller ones were blackish and very hard. One resembled a small sac filled with pus, another appeared to be filled with discolored fibrine. I passed the index finger into the rectum, and endeavored to feel the stylet, which I had again introduced into the fistula. A space of about ten lines separated the two.

What was I to do? Ought I to penetrate through this tissue, perforate the rectum, render the fistula complete, and then lay it open after the common method? There were rational indications for this course, and notwithstanding what certain authors have said, I could have followed them without much trepidation. But the perfect state of the cellular tissue that enveloped the rectum; the position of the fistula, which was very much advanced towards the perineum; the bad condition of M. B.'s constitution, the spitting of blood which he had had, and a strong resonance of the voice, discoverable with the stethoscope, were circumstances that made me resolve only to remove the decollated skin, dress the sore, and observe the consequences in the diseased part, the breast and the head. M. Dubois (d'Amiens) accorded with me in opinion, and desired to aid me in the operation.

I cut the skin, where it was most free, into four points. I thus formed four triangular flaps, the free summits of which converged towards the fistulous opening. Each of them was then seized with a forceps and separated at the base, just at their junction with the healthy tissue. By this means I obtained a nearly oval wound; the longest diameter of which extended from the bulb of the urethra to the anus. The bottom was smooth and covered with a false tissue resembling the mucous membrane. Nothing indicated any further passage. (Dressing simple.)

In a few days the cicatrix was much advanced, and before the second week was complete at the centre. But at the two extremities, that is towards the bulb and the anus, two points continued to suppurate, and instead of a large traumatic surface, there presented two small openings which soon assumed a fistulous character. In spite of my previous explorations, I thought at the moment that there must be a lesion of the neighboring passages—the rectum and urethra. Yet it was impossible to discern in the discharges of the fistula any thing appertaining to the materials that pass through these natural channels. I then cauterized the two fistulous points with nitrate of silver. When the eschar fell off, that which was nearest the bulb still furnished pus, and seemed to have grown larger; the other had closed. Then the two hemorrhoids, that had been shriveled, swelled, and became of a lively red. Two of the smaller ones ulcerated—the one that was filled with pus and that which seemed to contain discolored fibrine I cauterized both. The ulcerations disappeared, but several of those small blackish tumors, of which I have spoken—a kind of bloody concretion—became discolored, and softened, and the mucus membrane that covered them ulcerated, discharging a bad conditioned pus. I reapplied the cautery, and they again cicatrized after the fall of the escars.

Still the principal sore—the one near the bulb of the urethra—continued to suppurate, and the two large hemorrhoids remained swelled. There was no suffering in the breast, and the nervous system remained in a good condition. A vesicatory was applied to M. B.'s arm; without irritating it the suppuration became very profuse. I then cauterized the remaining ulcer of the perineum, and obtained its cicatrization. There was no further appearance of fistula, but the discharge from the arm became still more abundant and fetid. I thought I had cured my patient, and enjoyed, with him, the consequent satisfaction. But five days after, the sore of the perineum, near the anus, again opened, and the two principal hemorrhoids shrunk. At the same time defecation became painful, whilst the urine was passed without the least suffering. I explored the rectum, as I had already done, and found a denudation of the anterior part. The patient felt the stylet pass deeply, and exclaimed that it *touched the bowel*. He then gave himself up to the most profound grief. It was with the greatest difficulty that I could prevail on him to allow the first operation; the prospect of a second was still more alarming. He was sure it would be more painful and serious than the first. Every day he was apprehensive of seeing me followed by the assistants that would have to aid me in *cutting the bowel*.

In order to save the extreme sensibility of my patient, and remove even the appearance of an operation, I resolved to operate without assistants. For this purpose I made use of the royal knife, modified by M. Charriere.* This ingenious cutler has so altered this instrument, that it now consists of a very flexible silver stylet, and a similunar knife. It was easy to hide the latter from the patient. With the stylet I sounded the fistula. In order to make it reach the rectum it was considerably curved.

Having brought the probe-pointed extremity through the anus, the knife was applied to the other end, and thus made to pass through its course under the direction of the stylet. The diameter of the stylet to be used should always accord with the fistula. The knife does not cut the same similunar like passage as the former part of the instrument, but opening itself as it advances, it separates at once all the tissues existing between the two openings, and that, too, with the greatest rapidity. My patient asked me if I must really operate, when I had already finished. I took the precaution to perforate the mucous membrane of the rectum at the denuded point, just before operating. By thus rendering the fistula complete, I facilitated the operation, and I thought augmented the chances of a radical cure.

M. B.— could not continue the dressings necessary for cicatrization. Nervous affections supervened, followed by delirium, and tranquillity could only be restored by removing the local applications from the wound. They tormented the patient from two causes; first by pain in the part, and an almost spasmodic closure of the sphincter; and secondly, by the consequent suppression of the escape of gas, which increased his nervous sufferings. I used opiates in all forms, general and local. But these *went to the head*; and as delirium had already shown itself, I suppressed the preparations of opium, fearing meningitis. Notwithstanding all this, the wound assumed a good aspect, and a manifest tendency to cicatrization. I varied the form and dimensions of the tents, frequently changed the unctuous substances with which they were covered, but still they produced the spasmodic contractions of the sphincter, and a nervous state of the patient generally, which gave me much uneasiness. I at last determined to abandon the cure to nature, and abstain from all dressing, firmly resolved to leave my patient with his fistula if it returned. On the contrary the wound progressed regularly towards cicatrization. The bottom and sides filled up perfectly, and at the end of fifteen days there was no further trace of a fistula. There then followed a copious spitting of blood, preceded by a light cough; *the burning of the breast* became very great, and delirium again showed itself.

I avow that I began to repent of having undertaken the second operation. I however recalled to mind the engorgement that had taken place among the hemorrhoids after the first operation, and its progression with the cicatrization of the wound. I determined then to induce a bloody discharge from their surfaces. I first applied leeches to the anus extensively, and then administered a purgative with aloes. I also applied a cautery to the arm that had formerly been blistered. The spitting of blood continued but two days, but there remained considerable cerebral exaltation, (pendiculations) and tremblings two or three times a day. The hemorrhoids evidently more swelled. I had observed, that the nitrate of silver applied to the neck of the womb, produced sometimes a bloody discharge resembling menstruation. I touched the hemorrhoids lightly with it. The next day, on getting up, the patient found his bed stained with blood. He was certain that it came from the fundament. From that moment M. B. was an altered man; there was no more delirium, no more pendiculations, no more trembling, no more hæmoptysis, no more burning in the breast, no more fistula, and no more melancholy. Two months have passed since the cure. M. B. increases *en bon point*. The hemorrhoids discharged for nearly fifteen days. The cautery furnishes a very abundant fetid discharge, that irritates every part of the anus that it touches. The voice is still a little resonant, but neither percussion nor auscultation indicates any sensible alteration of the lungs.

REFLECTIONS.—This single case would furnish matter for numerous explanations. It is a fact that would comprehend many others, all having their origin in the laws of organization, which it would be necessary to inquire into. I leave this enjoyment to theorists; my business

* The idea of it has been furnished by M. Maux or M. Breschet.

is to speak of some questions that belong directly to the practice, and follow properly the details that I have given.

First then : was it necessary to perform the last operation on M. B. ? He had spitting of blood, he had had an epileptiform affection, he had a weak constitution, &c. I know that many practitioners would reply in the negative : I was myself a long time undecided. I know the facts that could be invoked against the plan I have followed. I analyzed them severely, and they proved to me, 1st. that in case of death, the operation cannot always be accused, and 2d. that often, on the contrary, this fatal event might be evaded by an opportune operation, if proper means were used to replace the discharge proceeding from the fistula. Besides which, it is necessary to distinguish 1st. the degree of the internal lesions, 2d. the epoch at which the fistulas opened. Some precede the disease of the chest, and seem to be a cause of it ; others again are the consequence of it ; and many are produced by accidents during the existence of the visceral disease, and have no other connexion with it. Well, wil you treat all these fistulas alike ? Or in every case proscribe the operation, because in every case there co-exists the two lesions ? Certainly neither.

And, besides, all long standing surgical diseases are in nearly the same condition, interrogate the viscera well during the existence of profound lesion of the members, or of the external parts of the trunk ; they almost always indicate suffering that sympathizes more or less with the surgical disease. Should we on this account abstain from operating ? Certainly not. Study the causes, and all the circumstances which relate to the development of the disease ; take proper measures to destroy the vicious habits of the organization ; and if the part to be cured is the seat of an important morbid function, attract the humors to some one or more places of election, and you may then operate without prejudice to the patient.

Some may reply to this that there is a great difference between the diseases with which I assimilate it ; for example, between a white swelling of the joint and a fistula in ano. In the first case they say there almost always arrives a time at which the lesion is incompatible with life ; and beside which, the affected member prevents the patient from following his usual occupations, &c. &c. ; whereas the fistula in ano, is but an infirmity ; an issue, badly placed it is true, but the effects of which are not the less salutary. To this I would say, that the fistula is often a very serious and painful disease, that it produces local and general effects that often lead to death. I have observed fistulas produced by a stroke ; by riding on horseback ; fistulas altogether from external causes, and effecting very healthy and vigorous subjects, but which being neglected have gone on to denude and perforate the rectum, and then followed by infiltration of matter, mortification of the perineal cellular tissue, and such other accidents are the ordinary consequences. In other cases there is an absorption of the purulent matter, the viscera become secondarily affected, and bring on death ; or an extensive suppuration consumes the patient.

Besides, if the fistula be really necessary to the organization ; if it be by this that it frees itself from some offending cause, we may be sure that no cicatrization will take place. Is it to be supposed that nature, which we endow with so much prescience, will close a salutary passage because we open it too large, and exert ourselves to keep it open ? Observe the phthysical patients who have an old fistula. They die with it upon them, whether we attempt an operation or not.

Thus, then, to say in an absolute manner that there should be no operation for fistula in ano, when there exists a visceral lesion, would be to push a principle to the injury of science and humanity, and which would be contradicted by authenticated facts. In the case I have just narrated the problem was complex. I had to fear the consequences in the breast and head. In truth the lesions were not very great, since they made themselves known only through fugacious symptoms. However, although there was but light spitting of blood, resonance of the voice, and delirium, still the head and lungs were not entirely normal. But all terminated well. Happily says one, because of the hemorrhoidal flux. I reply, happily also, because of the appropriate use of leeches, the aloetic purgative, the cautery, and perhaps still more happily, because of the application of nitrate of silver, &c. Still I suppose nature must have the

honor of this cure: this would also be an argument in favor of the principle I support: for it proves that when nature is sufficiently powerful to open one passage of elimination, it can open another when art closes the first. But I cannot see what is closed in practising the operation for fistula in ano.

It is not the first time that a suppuration has been removed by a hemorrhage. Besides it is always from the blood that the discharge of the emunctuaries of any kind are obtained. It would be better then to appeal at once to this fluid, for to convert it into pus it almost always requires a particular modification of the tissues: thereby becoming a more serious pathological condition, than that which ordinarily produces a hemorrhage. And which proves that there may be physiological hemorrhages; but that a suppuration is always a morbid action.

I would recall attention to the fact that this fistula followed an attack of the cholera. Will it be said that it might have been the crisis of this disease? But it is known that critical efforts were rare during this epidemic. I must also call the attention to the particular aspect which many of the hemorrhoids presented; they were hard, and the most of them very black, some discolored, one filled with pus: in fine, it seemed that the blood in those small tumors was altogether coagulated and undergoing many transformations. It is known that pus has been found in the centre of clots of blood; I have published a fact of this kind in the *Gazette des Hopitaux*, and other observers have made the same remark. The pus contained in one of these hemorrhoids might very well proceed from a spontaneous alteration of the blood, for by the side of it was another filled with discolored fibrine; perhaps the commencement of decomposition. These small hemorrhoids, mostly ulcerated, evacuated themselves and shrunk up.

By observing these phenomena more closely, we may be the better prepared to account for the formation of fistula from hemorrhoids. Instead of being external, if those I saw ulcerate had been internal, and the ulceration in contact with irritating matter, the humors that would have been introduced by the spontaneous perforation into the surrounding cellular tissue might have produced abscess and fistula. It was thus probably that the one at present under consideration was formed. It is true that in my examinations I was unable to find an opening, but perhaps it might have been obliterated. And besides it might have existed, and in spite of the most minute examination I might not have been able to find it. That which proved the existence of a relation between the fistula and hemorrhoids, was the changes which the latter experienced, according as the fistula shrunk, or as it furnished a suppuration more or less abundant. Cholera is not altogether a stranger to the peculiarities which these bloody tumors offer. It relaxes the circulation singularly; arresting it in the points where it is even the most active; *a fortiori*, where it is the most languid. It is possible that the blood may have been arrested in the hemorrhoids; that it might have become disorganized, and that its elimination might have produced the solution of continuity which was the commencement of the fistula. This explanation is also adapted to all fistulas caused by hemorrhoids. The blood being arrested by an irritation, might coagulate as we see in certain varices; it then becomes a foreign body, and must be eliminated. The way opened for it gives a passage to the mucous discharges; these so modify it, that it becomes covered with a kind of mucous membrane. The veins themselves may form these canals, for their inner membrane can have its nature changed by a change of agents acting upon it. Thus it is that a blood vessel becomes an excretory canal. Besides which the veins are more or less directly leagued with the functions of elimination; by becoming a portion of a fistulous passage, they are not entirely altered. The arterial system, on the contrary, having another destination, cannot undergo such a change.

I cannot terminate without saying a word upon the utility of tents (*meches*). Here, as has been seen, they produced serious consequences, and it was necessary to abandon them altogether, yet the cicatrization progressed regularly. For this I would not propose to abandon them entirely, but would say that perhaps these advantages have been exaggerated. Who does not know, that often in hospitals, either from negligence, indocility of the patient, or on account of diarrhœa, or some other cause, that the wound remains without them, whilst the fistula nevertheless becomes cured.

In my opinion the nitrate of silver determined the hemorrhoidal flux after it had been prepared

by the aloetic purge and leeching. May we not draw something from this fact, in favor of the same treatment in amenorrhœa?

I cannot enter into any reflections upon the coincidences that exist between the two principal hemorrhoids and the fistula; between the quantity and quality of the suppuration of the cauterium and that of the anus. These facts would invite some doctrinal questions that would lead me too far; I must content myself with barely noting them. Besides, such facts are never lost; sooner or later they will be of service; for thanks to the good direction of the spirit of observation; thanks to the progress of medical reason, *humoralism* again exists (*l'humorisme ova renaitre*).

From the Bulletin General of Medical and Chirurgical Therapeutics.

ON THE USE OF SULPHUR BATHS IN THE TREATMENT OF CHOREA.—BY T. CONSTANT.

The effort, of assigning to lesions of the material organs of the body the different functional disorders of the economy, was undoubtedly a beautiful and happy idea; and in this respect the labors of our contemporaries have thrown some light on many important points of practical medicine. But there are yet numerous diseases of the nature and seat of which pathological anatomy is entirely silent. Among these are found epilepsy, tetanus and chorea. The symptoms which characterize these three diseases, show in many instances material alterations in the nervous centre. But in the great majority of cases the scalpel seeks in vain, after death, a lesion that would account for the phenomena observed during life. In three cases of chorea, M. Sures has found, on post mortem examination, an inflammation of the tubercula quadrigemina. M. Monod has recently communicated to the *Société Anatomique* two cases of chorea, in which *hypertrophy* of the brain and spinal marrow were the only perceivable lesions which could explain the disease; others have pointed out tubercles in the brain. We have had occasion, in our researches on the diseases of children, to open the bodies of some chorea patients who had died of intermittent diseases, and in every case we were unable to find any appreciable alteration in the nervous centre. Quite recently, in the charge of M. Baudelocque, at the Hospital of Infants, a child, three years old, sunk under acute peritonitis during the existence of a most intense chorea, and the most minute microscopic researches were unable to discover any lesion of the brain, the spinal marrow or their membranes. Nevertheless, we ought not to reject the facts published by observers. Before proceeding to the practice, or the use of any remedies, we will carefully examine the nervous centre, in order to discover whether or not it be the seat of an alteration which would account for the chorea symptoms. The distinction between idiopathic and symptomatic chorea, pointed out by MM. Franck and Boutiella, is not without importance in a practical point of view. Sulphur bath in symptomatic chorea, would be as useless and as dangerous as peruvian bark in intermittent fever, before the vitiated secretions of the intestinal canal were removed.

Supervening most commonly the influence of a quick emotion, idiopathic chorea affects particularly children of both sexes, from seven to fifteen years of age. It is much more common among girls than boys. It is sometimes partial, sometimes general. We have seen among some patients the choreic motions limited to the muscles of the face, of the neck, of a member; sometimes it affects one side of the body alone; in a great number of cases several muscles were simultaneously affected. But there are few diseases which are better characterized by their symptoms than chorea.

Medicines, the most diverse, have by turns been extolled in the treatment of this affection; each boasted of the medicine which had had the most success in his hands, but observed guarded silence when they failed. One practiced general bleeding, another had recourse to leeches. The antiphlogistic method had enjoyed a certain favor for some years; there are yet some physicians who abuse it deplorably. We have seen children brought to the hospital who had been seriously debilitated by the repeated application of leeches. Eighty, one hundred, and one hundred and fifty leeches, have been applied on the line of the vertebral column, without any appreciable relief. M. Guersent has told us of having seen, in civil practice, children re-

reduced to the last stage of marasmus by the numerous application of leeches. In compelling parents to renounce this means, in administering substantial aliments to the patient, and in the use of excitants, internal and external, he has rendered patients fat and strong, and triumphed over chorea.

We think that there ought to be great discretion in the use of blood-letting in idiopathic chorea; and to preserve it only for those cases in which this disease seems to be symptomatic of a lesion of the brain.

In England there has been much boasting of the effects of purgatives. Hamilton, Bardsley and numerous others, say they have obtained great advantage from the use of purgatives. M. Elliotson has lately recommended the use of subcarbonate of iron, which he regards almost as a specific. In fact, all medicines which belong to the class of anti-spasmodics have been used; we may cite among others, valerian, oxyd of zinc, assafœtida, and camphor. In relation to baths, some have extolled the warm, others the cold bath. Sulphur baths are those to which we give preference at the *Hospital for the Diseases of Children of Paris*.

Since the first of January, 1833, eighteen choreique patients have been submitted to the use of the sulphur bath. Of this number, six boys were placed under the care of M. Guersent; among three this method was employed exclusively, and cures effected at the end of twelve, eighteen and thirty-six days. Another experienced striking amelioration after the sixth bath, but becoming tired of the hospital he quit it, contrary to the wish of the physician. This treatment has completely failed in two cases of complicated chorea. The first of these cases was that of a child five years old, which was affected with chorea from its infancy. At the age of four months the disease was first observed; it is besides, afflicted with idiocy; all tending to produce the impression that in this case there is a lesion of the encephalon. In another case, chorea manifested itself immediately after the opening of an abscess seated in the fossa of the right clavicle, the members of the right side of the body were alone affected. The sulphur bath, then cold bath, and then valerian failed completely; purgatives were also employed in vain. The patient has been twice in the hospital, where he passed about a year. He went away as he came, without having experienced the slightest relief.

In the girls' wards, of which M. Baudelocque had charge during the winter months, twelve choreique patients were treated by the sulphur baths.

In ten of these the disease was terminated by complete cures under this practice. At the moment in which we commenced the use of the sulphur bath, the disease had run in some eight days, in others from three weeks to two and three months. Twenty-four days was about the average treatment. The eleventh patient sunk under an accidental peritonitis; and finally the twelfth gave herself up to masturbation under the influence of which chorea manifested itself. She has experienced only a faint relief. Among other medicines valerian and strychnine were employed without success. This patient, who has been in the Hospital eight or nine months, has been treated for some time by the oxyd of zinc. Her condition seems to be evidently ameliorated under the influence of this medicine prescribed by M. Jadelot.

The day after the entry of the patient into the Hospital, we commence the use of sulphur bath. We administer one each day, with the exception of Thursday and Sunday. The ordinary drink of the patient is infusion of the linden tree and orange leaves. For aliment they receive one half the Hospital allowance. The use of the sulphur bath ought to be persevered in. In some patients amelioration is not manifested till after the 12th or 15th bath; but from that time it is rapid, and the cure not less complete. In the greater number of cases improvement was obvious from the first baths. One young patient in the environs of Paris, attacked with an intense chorea, which had resisted the application of eighty leeches along the line of the spinal canal, experienced a notable relief after the 5th bath. The change struck his parents, who visited him eight days after his admission to the hospital.

Thus the administration of the sulphur bath in the chorea of infants has great advantages; since, out of eighteen patients treated by it fourteen have been cured. This success has not been obtained in this rebellious disease by any other treatment.

Note.—The great objection to the application of the sulphurous bath has been the difficulty

of confining the gas. It would escape and impregnate the atmosphere of the room in which the patient was placed; and its irritating and injurious action on the lungs was generally found nearly to counterbalance its salutary effects on the skin and nervous system. But all the evils and inconvenience arising from this point have been completely obviated by an ingenious portable apparatus, invented by Mr. Riley, formerly of Cincinnati, but now of this city. By means of this apparatus the sulphurous acid gas can be so applied to the surface of the body that not a particle of it will escape, and the most delicate female can use it without the slightest inconvenience. It has been used by the physicians of the city in rheumatism, and several acute and chronic inflammations of the skin, and chylopoietic viscera with the happiest effects. Senator Naudain, of Delaware, a very enlightened, scientific and practical physician, represented to the Senate of the United States, last session, the great advantages of Mr. Riley's invention; and urged the government to introduce it in the medical departments of the army and navy.

EDITORS.

CASE OF EPISPADIA.—BY DR. CRAMER.

In the autumn of 1828, during the levy of troops in Wesensee, I had an opportunity of examining a young man of 21, who had a remarkable malformation of the urinary organs. The urethra did not lie in its usual place beneath, but above, the corpus spongiosum, and was divided in its whole length from the arch of the pubes to its extremity: the penis was of the natural length. The mons veneris was wanting, but in its stead there was a reddish skin, covered with a scaly cuticle, and destitute of hair. Beneath the pubal arch there was an opening, into which a finger might be readily introduced, so as to reach the isthmus. The glans were also divided, and the rudiments of a prepuce were observable about its root. When the margins of the fissure were brought together by pressing them on both sides, they were found to coincide pretty exactly. There was nothing apparently amiss with the scrotum and tests: and the animal passions were energetic, though the young man denied that he had ever had any sexual intercourse. His parents were healthy people, and none of his brothers or sisters ever had any deformity that he was aware of. It should be added, that this person labored under incontinence of urine; and for the greater convenience of emptying the bladder, was in the habit of generally wearing a petticoat instead of breeches. Does not malformation of this kind belong to the hare-lip and cloven palate species: and might it not be cured by similar means?—*Medicinische Zeitung; edited by Dr. Hecker of Berlin.*

BELLADONNA IN OBSTRUCTION FROM BILIARY CALCULI.

A boy, ætat, 15, after exposure to wet and severe cold, was seized on the 30th of March, with incessant vomitings, rigors, weight at the epigastrium, and delirium; these symptoms, which were unattended by fever, lasted three hours. For two days they returned at the same period, but the third attack was half an hour later, and more alarming in violence; opium and quinine were prescribed by Dr. Solate, but, although they afforded temporary relief, still they did not prevent the daily occurrence of the paroxysm; ten days after the first seizure he was attacked in the night by an acute pain in the right hypochondrium, and tension of the abdomen; three days after this time the skin and conjunctiva became of a bright yellow color, and the bowels were much constipated. In the space of forty days, all the remedies, which experience has recommended in such cases, were tried, but without any relief: suspecting the existence of a stone in the biliary duct, Dr. Solatte, whose patient the boy was, applied the extract of belladonna over the epigastric region and right hypochondrium; and as the pains were diminished in violence by the application, he gave, internally, a pill, composed of the third part of a grain of the extract every two hours. On the 5th day, the dose then being half a grain every two hours, the patient became drowsy, when the hepatic pains entirely disappeared; within the course of the next three days he passed eight calculi, after which he recovered his usual health.

THE
REGISTER AND LIBRARY
OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, AUGUST 27, 1834.

No. 38.

To the Editor of the Medical Gazette.

OBSERVATIONS ON THE THEORY OF RESPIRATION.—BY DR. STEVENS.

SIR,—I have been induced to send you the following observations, in consequence of a paper written by Dr. Gregory, and Mr. Irvine, of Edinburgh, and lately republished in the Medical Gazette. If I have passed in silence the objections which have been made by certain individuals, it was partly because it must have been obvious to all that the said objections were made from personal motives, and written at a time when the writers were under the influence of excited feelings, which rendered them altogether incapable of investigating truth. The paper from Edinburgh is of a very different description. It is written by gentlemen of scientific acquirements: their object is pure, their objections are plausible, and therefore entitled to the most attentive consideration.

Until very lately, it was generally believed that the addition of oxygen was the essential agent in producing a change of color in the blood from venous to arterial; but it is now, if I mistake not, almost universally admitted that there is another agent in the circulating current which is much more essential than even oxygen for this purpose.

The air which is obtained from pure water, contains about 32 per cent. of oxygen. When we immerse a small clot of arterial blood* in a large volume of this oxygenated fluid, the color changes from arterial to venous, exactly in proportion as the salt of the blood oozes out of the clot; and if the water be repeatedly changed, the clot, after a short period, becomes quite dark. Hence it is evident, that black is the natural color of the hematosine. When we remove the black clot from the distilled water, it does not become red on exposure to the air; in fact, it remains black, even in an atmosphere of pure oxygen: but when we immerse this black clot in a clear saline fluid, the color changes instantly from black to arterial, even when the water has been previously deprived of its air by the action of the air-pump. From these and other facts, it is very obvious that it is not oxygen, but the natural saline matter of the blood, which is the essential agent in the change of color from venous to arterial. It is more easy, however, to prove the inaccuracy of an existing hypothesis than to bring forward a new theory, however correct it may be, against which critical ingenuity cannot devise some plausible objections.

It is admitted by Dr. Gregory and Mr. Irvine, that a strong saline solution changes the color of the blood from venous to arterial, without the contact of oxygen, or indeed of any gas what-

* The blood which was used in my own experiments had been arterialized by exposure to the air. That which was used by Dr. Turner was taken from the femoral artery of a dog. (See Turner's Chemistry, 4th edition, p. 903.)

ever; but on the same authority it is stated, that the serum, which is a dilute saline fluid, or water of the same saline strength as the serum, produces *no effect whatever, without the presence of atmospheric air*. This, if it be one, is the only plausible objection that has yet been brought against the new theory of respiration; but I trust to be able to prove that there is a fallacy in the experiments referred to, which renders the conclusion which has been drawn from them of no value.

It has been proved by numerous experiments, that it is not the iron, but the saline matter of the blood, which is the cause of its red color, even in the venous circulation. We have seen, also, that when the blood is deprived of its saline ingredients, it becomes perfectly black; and, with the exception of these, there is not one of the other ingredients of the blood which is capable of striking a red color with the dark hematosine. We have reason to believe that there is not one particle of free oxygen in the venous blood; yet even the venous blood has a dark red color, which would not be the case if the salts in the serum had no effect whatever, except when in contact with atmospheric air.

It may not be superfluous to observe, that the exact quantity of salt in the blood has not yet been ascertained with sufficient accuracy. When the solid ingredients are exposed for hours to a red heat, it is probable that a part of the salt is also driven off with the animal matter; but, even by this rude process, at least ten grains of dried alkaline salts are obtained from 1000 grains of blood; or, in other words, each ounce of blood contains about five grains of salts; and it appears from the following experiments, that this quantity is sufficient, without oxygen, to account for the red color of the venous, or the scarlet tint of the arterial blood.

About two ounces of serum were exposed to the action of an air-pump, until as much of the air was removed as it was possible to obtain from so dense a fluid. A black clot which had been soaked for hours in distilled water, was immersed in the serum; it changed in a short period from black to a bright red color, although the pump was again almost immediately used to expel any small portion of air that might have entered with the clot.

It is very difficult to remove the whole of the serum from the clot, and equally so to remove the whole of the air from the dense serum. The clot which was used in the above experiment was quite dark; it is possible, however, that it still contained a minute portion of salt; but to avoid this objection, a portion of blood was allowed to remain undisturbed for twenty-four hours. The serum was then carefully poured off; a number of small pieces were cut from the centre of the crassamentum, and soaked in distilled water, which was occasionally renewed, until the water, which was poured off, lost all trace of saline matter. The clots were again washed in distilled water; they were afterwards exposed for some time on bibulous paper, and then used in the following experiments.

Ten grains of dried muriate of soda were dissolved in 1000 parts of distilled water. This was boiled for a few minutes, and allowed to cool in a close vessel: it was afterwards exposed to the action of the air-pump, and only a few globules made their escape. A clot was then introduced into this exhausted fluid; the pump was again immediately used; but notwithstanding this, the clot changed almost instantly from black to bright red. The clot was allowed to remain upwards of an hour in the exhausted receiver; it was then removed and placed beside one of the clots which had been taken from the distilled water. This was quite dark, but the former had a bright arterial color, even at the moment when it was removed from the weak saline fluid. If the brightness increased at all on exposure to the air, the increase of color was scarcely perceptible.

In the next experiment a solution containing ten grains of bicarbonate of soda, was dissolved in 1000 parts of distilled water. The result was exactly the same as with an equal portion of muriate of soda; it was also similar when a solution was used containing six grains of the muriate, two grains of the bicarbonate of soda, and two grains of the muriate of potass.

A solution, containing eight grains of the muriate of soda produced a decided change of color. The tint was not so strong as in the former experiments, but still when the clot was removed from the water, it was nearly as florid as arterial blood. I may add, that an increase of redness was produced, even when a solution was used which contained only five grains of the muriate

of soda. These experiments were made in the laboratory of Mr. Squire, of Oxford street, by that gentleman and myself; and those who will repeat them, will scarcely admit that "a weak saline solution has no effect whatever, except when in contact with atmospheric air."

The following experiment was made during the early part of last year, in Copenhagen, by Professor Forchhammer and myself:—

About four ounces of venous blood were conducted from a vein in the arm, through a tube, into an inverted glass filled with mercury. When the blood rose to the top, and had displaced an equal volume of the heavier fluid, the blood appeared through the glass to be almost black. We then introduced about one ounce of a solution of salt. As soon as this came into contact with the lower portion of the coloring matter, there was a decided increase of redness; but still it was far from being equal to the arterial color. From this we may infer, that so long as carbonic acid, which is the cause of the darkness of the venous blood, remains in immediate contact with the coloring matter, it is difficult, even with an increased quantity of salt, to counteract entirely its darkening effect. On the other hand, when a clot has been immersed in distilled water, the color is black merely from the loss of its saline matter. In this case a very weak saline fluid is sufficient to produce the arterial color, even when the vessel which contains the clot is immersed in an atmosphere of pure carbonic acid.*

Carbonic acid, hydrogen, and nitrogen, darken the color even of arterial blood; and so long as these agents remain in direct contact with the hematosine of venous blood, a stronger saline fluid is required for the purpose of changing the color from venous to arterial. It is not fair, however, without making a due allowance for the difference, to draw a comparison betwixt what takes place out of the body, in an air tight glass over mercury, from which the blackening gaseous agent cannot escape, and the changes which occur in the respiratory organs, where the blood is freely exposed to the action of the air. Had Dr. Gregory and Mr. Irvine attended to this difference, they would have drawn a different conclusion from the result of their experiments.

When the impure blood is circulating in the venous system, the carbonic acid, the cause of the darkness, is in immediate contact with the coloring matter, consequently the natural quantity of salt in the blood is not more than sufficient to produce a faint redness; but when this dark blood arrives in the lungs, and the acid is removed, the same quantity of salt appears, from the above experiments, to be quite sufficient for the purpose of producing the arterial color.

In the paper referred to, it is stated that the color of the blood became arterial when the clots were exposed to the action of the air. This, however, is not a positive proof that the change was produced by the addition of oxygen; for this may have been owing entirely to the sudden removal of the darkening gas.†

* Carbonic acid, which is a necessary constituent of venous blood, is said by my friend Dr. Clanny, to be the mainspring of life; but if so, why is it so destructive when allowed to enter the arterial circulation? When the color is dark merely from the diminution of its saline ingredients, as in the last stage of the yellow fever, cholera, &c. such blood may pass into the arterial system with comparative impunity, and maintain life for twenty-four hours. When blood, however, which contains carbonic acid enters the arterial system, even though it be less dark, it acts as a poison, and causes almost instant death. It has been ascertained by Dr. Edwards, that the young of certain animals do not begin to generate animal heat for several days after they are littered. During this period it is probable that there is very little, if any carbonic acid in the venous circulation; consequently this blood can circulate in the arterial system with such comparative impunity, that these animals may be repeatedly immersed under water, even for half an hour at a time, and still live. As soon, however, as they begin to evolve their own heat; or, in other words, as soon as carbonic acid is contained in the venous blood, this power of living under water is entirely lost.

† A late writer, O'Shaughnessy, has denied that carbonic acid blackens the blood; but the fallacy of this can easily be proved by a very simple experiment. When we almost saturate distilled water with common salt, and mix this with recently-drawn venous blood, the color changes almost instantly from venous to bright arterial, when we pass a stream of pure carbonic acid through this, it suddenly becomes nearly black: when this is exposed for a short time to the air, it again recovers its scarlet color, and the experiment may be repeated as often as we please.

From the facts which have been stated, it must be obvious to all, that the experiments are not conclusive which were said to render a modification of the new theory of respiration "somewhat necessary." A modification may be necessary, but certainly we are not led to this by the result of any of the objections or experiments hitherto published.

In my late work on the blood, if I have dwelt too much on the reddening which is produced by the removal of the acid, it was partly because this circumstance had been previously entirely neglected. If, on the other hand, I attributed too little to the change of color supposed to be produced by the addition of oxygen, it was partly because this had hitherto been considered as the sole cause of the arterial color.

I may have erred in attaching too much importance to improvements which I then believed, and still believe, to be entirely my own; but by referring to my work on the blood, you will find that I had some doubt on this subject, even at the period when that work was published. I have stated in the tenth page, "That the cause of the scarlet color exists in the blood independent of oxygen; or, at all events, *oxygen of itself* cannot produce either the red or arterial appearance; and this appears to come near to the truth, for as a reddening agent, oxygen of itself is perfectly inert.

We have seen that even pure oxygen can no more produce redness in blood that has been deprived of its saline matter, than it can give an arterial color to common ink. Hence we may infer, that the essential cause of the arterial color exists in the blood; and were it not that the serum is a saline fluid, there would not be any change of color in the pulmonary organs. The addition of oxygen *may* have some effect in the change of color from venous to arterial, but so far from being the sole, it is a mere secondary agent. I have proved that the quantity of salt contained in the blood *can* produce the arterial color, without any assistance from the atmospheric air; but still it is possible, when the acid is removed in the pulmonary organs, that the oxygen which enters may produce some change in the hematosine, which renders it more easily reddened; or what is more probable, a part of the oxygen which enters may combine with, and produce some change in, the saline ingredients, which may enable them to act upon the coloring matter with more force: but at the same time that I suggest the possibility of this, still I must repeat that *oxygen of itself is perfectly inert*; and if it does produce any effect, it can only do so *when the coloring matter is in immediate contact with a saline fluid*.

It is admitted by all, that carbonic acid is evolved from the lungs, and also that oxygen is absorbed. Lavoisier was the first, however, who affirmed that carbon was the cause of the dark color of the venous blood. According to his hypothesis, when this impure or carbonized blood arrives in the lungs, the carbon combines with the oxygen of the air, and forms carbonic acid, which is then expelled in the process of expiration. Such is the hypothesis which, until very lately, was almost universally received; but the result of some recent experiments renders this view of the changes which occur in the lungs altogether untenable.

When Dr. Edwards forced some small animals to breathe in an atmosphere of hydrogen, a quantity of carbonic acid was evolved, in some instances equal in bulk to the size of the animals. These experiments were looked upon by many as almost decisive of the existence of that acid in the venous blood; but others consider them of no value, for they allege that there may have been oxygen sufficient in the pulmonary cells to account for the formation of the acid; consequently they are not willing to admit that it existed in the venous current. To avoid this objection, the following experiment was performed during the early part of last year, in the Polytechnic School of Copenhagen, by Professor Forchammer and myself.

A few ounces of venous blood were drawn from the arm, through a tube, into a glass vessel filled with pure hydrogen; the carbonic acid was expelled from the blood by a gentle heat, and though the volume of hydrogen was large in proportion to the small quantity of blood, still the gas which passed over was sufficiently impregnated with carbonic acid to give a milky appearance to lime water.

In another experiment, the blood (after having been well agitated with hydrogen) was allowed to remain in the glass for half an hour. The hydrogen was then displaced by pouring

a quantity of pure mercury into the vessel, and the result was the same as in the last experiment.

Since my return to England I find that a similar experiment has been performed by Mr. Hoffman, of Margate; which is thus described in the twenty-sixth number of the Medical Gazette for last year:—"Blood taken from a vein of the arm was received in a phial of pure hydrogen gas; great care being taken to prevent access of atmospheric air. After agitating this blood, in contact with hydrogen gas, the gas was found to render lime water turbid, and not to be inflammable; showing the presence of a considerable quantity of carbonic acid gas, which the hydrogen had attracted from the venous blood."

In the following experiment, which was made lately, I was assisted by a gentleman who is one of the best practical chemists in London, and consequently well calculated to judge of its accuracy.

A double-necked pint bottle was filled with pure hydrogen, and the tubes which were connected with each orifice were also filled with the same gas. The orifice of the ascending bent tube was placed on the skin near to the bend of the arm, and, when the vein was opened, the orifice of the tube was slid along the skin until it covered the incision which had been made with the lancet. The blood was conducted through the tube into the bottle. In proportion as it entered, a part of the hydrogen passed through the descending tube, the orifice of which was immersed in distilled water. When the bottle had received about five ounces of blood, both the orifices were completely closed, and the blood was agitated with the hydrogen for about five minutes. Before examining the air, the bottle was allowed to rest for about half an hour, so as to give the hydrogen sufficient time to attract the carbonic acid. The orifice of the descending tube was then immersed, and uncorked, in barytic water. This, in connexion with the bottle containing the blood, was then placed in the receiver of an air pump. In proportion as the air was removed by means of the pump, the gas which was over the blood passed through the descending tube into the barytic water; and in this experiment the hydrogen was so strongly impregnated with carbonic acid, that even the first few bubbles instantly caused a dense cloud in the water. From the above result it is very obvious that the venous blood is saturated, even in the extremities, with "ready made" carbonic acid; consequently we can no longer believe that this gas is formed in the pulmonary organs.

The oxygen which appears to exist in the arterial blood, chiefly in a free state, is evidently derived from the external air; and the carbon is probably produced by changes which occur in the capillary system. These agents are essential to life—particularly in warm blooded animals; but the union of carbon with oxygen, a process which was lately supposed to purify the blood, is in reality the cause of its impurity. There is, in the living body, an incessant combination of carbon with oxygen, and consequently a constant evolution of animal heat,* together with the necessary formation of carbonic acid. This change, however, is evidently effected, not in the lungs, but in the intermediate structure which exists all over the system between the arterial and venous circulations. It is in this texture that the blood ceases to be arterial and becomes venous, partly from the loss of its oxygen, and partly from the addition of carbonic acid. When this impure blood arrives in the lungs, it is changed from venous to arterial, partly by the sudden removal of the carbonic acid, and partly by the instantaneous addition of pure air.†

Lavoisier appears also to have been the first who believed it possible that the union of carbon and oxygen might occur in the great circulation; but he afterwards abandoned this for the other hypothesis. La Grange gave a decided preference to the theory which supposes the acid to be formed in the great circulation; but both La Grange and his followers erred in supposing

* The quantity of animal heat that is evolved, appears to depend partly on the degree of difference in quality betwixt the arterial and venous blood, and partly on the rapidity with which this blood circulates through the extreme texture. In the fœtus there is very little, if any, difference of quality betwixt the arterial and venous blood; and we have reason to believe that the fœtus does not possess the power of evolving heat until it begins to breathe: until this period, the blood seems to be used almost entirely for the formation of the solids.

† Dr. Bostock, in his valuable work on physiology, states, "That we have no proof of the existence of any gas in the blood." When we subject, however, either the arterial or venous blood to the action of an air-pump, we have sufficient evidence that both these fluids contain a very large portion of air.

that this union commenced in the left auricle of the heart, and continued until the blood arrived in the right ventricle. Dr. Edwards has made experiments to prove, that the oxygen which enters the arterial blood combines with the carbon in the great circulation; but at the time his late work was published, he appears not to have made up his mind with respect to the manner, or the exact spot where this combination takes place. He says, "With respect to the oxygen which is to contribute to the formation of the carbonic acid contained in the mass of the blood, one of two things must happen: it enters into combination either suddenly or slowly. In the latter case there will be oxygen to excess, circulating in the mass of the blood. This pure oxygen will therefore be subject to exhalation, which will take place in the organs adapted for giving passage to it, as happens in fishes, in the air bladders of which animals oxygen is found." From this, as well as other parts of his work, it is evident that Dr. Edwards at that period had not come to any decision on this subject. The carbonic acid, however, is not contained in the mass of blood: it exists only in the venous circulation; for the blood, even in the most minute arteries of the extremities, is as highly arterial as it was when it left the left side of the heart. On the other hand, the blood is highly venous, even in the most minute veins. From this it is obvious that the carbon does not combine with the oxygen, either in the arterial or the venous circulation; and for the same reason it is equally clear, that the animal heat is evolved, and the carbonic acid is formed *only in the intermediate structure all over the body where the arterial circulation ends and the venous begins.*

It is well known that the impure blood and the atmospheric air do not come into immediate contact with each other in the lungs. To what, then, are we to attribute the removal of the heavy carbonic acid from the blood? Spallanzani believed that the acid was exhaled from the lungs; and Dr. Edwards has adopted the same opinion. It is very obvious, however, that if this process were left to mere exhalation, the carbonic acid would remain in the blood and cause death.

We may give to the phenomenon any name that we please; but there is now no question of the fact, that oxygen possesses the power of attracting or lifting up carbonic acid even through the medium of a dense membrane.* When the impure blood arrives in the lungs, it is this power which enables the oxygen to remove the heavier gas, and to diffuse it almost instantly in the general atmosphere.

The absorption of oxygen is still considered by many as the first change in the process of respiration. It is very evident, however, that a fluid containing carbonic acid cannot absorb oxygen until a part at least of the acid be removed. When a tumbler containing carbonic acid, with a moist membrane firmly tied over it, is placed in an atmosphere of pure oxygen, the acid is removed faster than the oxygen can enter, and the membrane at first becomes concave. From this alone we may infer, that the removal of the acid is the primary change in the respiratory process; in proportion as this is effected, the space which was occupied by the acid is instantly replaced by at least an equal volume of pure air. This purified fluid follows the current. The existence of oxygen in arterial blood has been ascertained by experiment: but experiments are not necessary to prove this; for if there be one word of truth in the great discovery of Harvey, the blood which has received the oxygen must pass on to the arterial circulation. There may be other minor changes; but if the new theory be correct, the essential difference betwixt the arterial and the venous blood is, that *the former contains pure air and the latter carbonic acid.*

From the facts which have been stated in this paper, in addition to those which are contained in my work on the blood, the following conclusions may be drawn:—

1st. That the animal heat is evolved, and the carbonic acid is formed, not in the general round of the great circulation, but in the capillary system all over the body, where the arterial circulation ends and the venous begins.

2d. That carbonic acid is the chief cause of the dark color of the venous blood.

3d. That when this impure blood arrives in the lungs, the removal of a part at least of the acid is the first change that occurs in the process of respiration.

* See my late work on the Healthy and Diseased Properties of the Blood, p. 71.

4th. That the acid is removed by means of a power of attraction which oxygen possesses for this gas.

5th. That the salt in the blood is the essential agent in the change of color from venous to arterial.*

I am, sir, your obedient servant,

WM. STEVENS, M.D.

Albany Street, Regent's Park, March 27, 1834.

MEDICO-CHIRURGICAL SOCIETY.

At a very full meeting of this society, which took place on Tuesday, March 25th, a paper, by Mr. Mayo, was read, entitled "*Observations upon Ulceration of the Cartilages of Joints, and on Anchylosis.*" The following is a summary of its contents.

The author distinguishes three different forms of ulceration of cartilage, which appear to him to have been confounded partly with each other, and partly with an affection of a different nature. The cases are thrown into three classes, each illustrative of one of the forms of ulceration of cartilage which has just been mentioned. Class 1, contains instances of absorption of cartilage, beginning upon its synovial aspect; the new surface, if of cartilage, being perfectly smooth; if of bone, healthy: the absorption of cartilage having been attended with inflammation of the capsular synovial membrane.

Upon the cases brought forward in this class, Mr. Mayo observes, that they are of rare occurrence; that the absorption of cartilage is very rapid; and that it is attended with severe inflammatory pain and inflammation of the capsular synovial membrane; generally, also, with suppuration in the cellular tissue adjacent to the joint. The only favorable termination of the disease which Mr. Mayo has observed has been anchylosis.

Class 2, comprises cases of ulceration of cartilage, beginning upon its synovial aspect, producing an irregularly excavated surface, with fibrous or brush-like projections of the cartilage or synovial membrane, where it is reflected over the cartilage; the bone, and the surface of the cartilage towards it, being healthy. In the 3d class are to be found instances of ulceration taking place on both aspects of cartilage, but principally on the surface next the bone, attended with inflammation not only of the synovial membrane, but of the adjacent surface of the bone, and in some instances with inflammation of the cartilage itself. This disease the author considers to be clearly distinguishable from ulceration of cartilage beginning on the sy-

* I know but one respectable writer who still resists this conclusion. Dr. Paris, in the last edition of his *Pharmacologia*, states (see p. 135), "That the new views regarding the conversion of venous into arterial blood cannot be supported but at the expense of every received opinion. We are called upon to level with the dust the edifice which has been raised by the joint labors of our most distinguished philosophers, &c. &c. This defence, however, may be set up in favor of every established error. Such are the arguments that have been used, and with equal propriety, against almost every real improvement that has been made in the profession. It was this sort of logic which retarded for a time the admission of the discovery of the circulation of the blood. But though such objections passed current in the time of Charles the First, they will not be received now by any who are capable of reasoning for themselves. The stately "edifice" which was lately looked upon with so much veneration, is evidently built upon a sandy foundation, and destined to fall. If I mistake not, there are other received opinions which will soon follow, much to the benefit of science, as well as of humanity.

Dr. Paris is generally allowed to be a man of first-rate talents, and I have no wish to detract from his merits; but I must say that he suffers his prejudices, in favor of the opinions of "distinguished philosophers," to go rather too far, when he stigmatizes, as "an air-built castle," a theory which is supported not only by the most incontrovertible facts, but also by the approbation of many of the very first physiologists of the present day. Even Dr. Gregory and Mr. Irvine admit that the salt of the blood is essential to the change of color, from venous to arterial; and so will Dr. Paris, when he leaves the decision of this question to the test of experiment, in place of referring it to the opinions of distinguished philosophers.

I have been censured, also, for the remarks which I have made with respect to scurvy; but if I had scarcely seen this disease previously to the publication of my work on the blood, I have since visited that part of the world where scurvy is perhaps more prevalent than in any other. After having seen this disease on a large scale, so far from being induced to make any retraction, I am now in possession of the most unequivocal evidence to establish the accuracy of the opinions which I have formerly advanced upon this subject; and the fear of offending "distinguished philosophers" will not prevent me from laying this evidence before the public.

novial surface. As far as his experience extends, he has found it considerably less manageable; for though it may occasionally yield for a time to treatment, the joint remains strongly disposed to relapse into the disease. The circumstance which appears most opposed to recovery in this affection is the partial or complete separation of flakes of cartilage from the bone, which would prove an additional source of irritation. This complaint, again, is not less distinguishable from the disease which Mr. Brodie has described under the name of "scrofulous disease of the joints, having its origin in the cancellous structure of the bone."

Upon the subject of *anchylosis*, Mr. Mayo observes, that there appear to be three varieties in the mode in which the ends of bones become united after partial or complete destruction of their natural articular surface: one is *bony anchylosis*, in which the ends of the bones become united after the complete absorption of the cartilages and synovial membrane; a second is *cartilaginous anchylosis*, in which a junction takes place between surfaces, both of which are cartilaginous, but have previously been partially ulcerated; the third may be called *mixed anchylosis*, in which a surface of cartilage, that has undergone partial ulceration, is united to a denuded surface of bone. These distinctions, indeed, refer to differences rather in the nature of the surfaces that become united than in the mode and process of union. In each of the three kinds it may be proved, or rendered very probable, that an exudation of coagulable lymph, adhering to the surfaces which are in apposition, first glues them together mechanically, and afterwards becomes an organized medium of union. The layer of lymph is of very variable thickness: when in contact with bone, it is presumable that it gradually becomes ossified; when interposed between cartilages, it probably becomes absorbed after union has taken place. The same may happen, in part, in bony anchylosis.

The opinions advanced by Mr. Mayo in this paper, are supported and illustrated by an extensive series of preparations (injected and otherwise), from the Museum of King's College. Some of the specimens were of remarkable beauty, and strongly corroborative of Mr. Mayo's views. We particularly noticed some preparations, showing the *vascularity* of cartilage under states of diseases, the different forms of ulceration and absorption of cartilage, and the varieties of anchylosis.

PROLAPSUS OF THE UTERUS, CAUSED BY LABOR.

This is the case of a woman, in whom labor took place very rapidly, and was followed by prolapse of the uterus, and violent hæmorrhage. Efforts were made by Dr. Sole to return it to its situation but without success, and consequently the woman was in a state of great danger, not only from the progress of the hæmorrhage, but also from the intense inflammation, which was caused in the uterus by its strangulation between the labia; snow and styptics were applied without success, and, after failing in his efforts at reduction, he was obliged to make several incisions with a bistoury, for the purpose of enlarging the opening of the vagina, after which the reduction was made with the greatest facility; a plug was then introduced into the vagina, and retained in that position by appropriate bandages; no ill consequence ensued, and in a few days she was convalescent.—*Hopital de Treriglio*.

FUNGUS OF THE BLADDER.

An emaciated old man, aged 80, named Hubert Leon, was admitted for disease of the bladder and incontinence of urine, which was sometimes tinged with blood. He refused all medicines, and would not even submit to the introduction of a sound; after being in the hospital three weeks he died. The walls of the bladder were very much thickened, and although it was in an empty state, still it appeared above the border of the symphysis pubis; the cause of this unusual size was a large cancerous looking fungus, nearly filling up the whole of its cavity, and attached to its superior and anterior surface by a peduncle which appeared to arise from the mucous membrane; its surface was coated over with an orange colored urinary sediment, and its interior appeared to be formed of a white pulpy substance, something resembling the structure of the brain.—*Hotel Dieu de Troyes*.

LITHONTRITIC INSTRUMENTS.

We have examined the apparatus alluded to in the following letter from the inventor Dr. Hannah, and are entirely satisfied that it is admirably adapted to the object for which it is intended. The simplicity of its construction, the ease and accuracy with which it can be used even by surgeons of limited experience; the precision with which it can measure the diameter of the stone in the bladder, and the force with which it cuts it in pieces, and grinds it up, render it of great importance, not only to the medical profession, but to humanity. Before the invention of lithontritic instruments, few operations in surgery were more dangerous, and none more painful than that for the removal of stone from the bladder. Dr. Hannah's discovery will divest that alarming disease of all its terrors. It will remove the largest stone without pain; and its application will not require more anatomical knowledge and manual dexterity than the introduction of the common sound or bougie.

AS. ED.

To the Editor of the United States Telegraph.

SIR:—I have invented an apparatus for removing the stone from the bladder, without cutting, or scarcely paining the patient. Should you be desirous of seeing my contrivance, I shall have much pleasure in submitting it to your inspection, and explaining the manner of using it. You will see by the apparatus that I can with the greatest facility, and without any painful sensation to the patient, apply the *power* of a hundred pounds weight (and upwards if necessary,) to the body of the stone for cutting and crumbling it in the bladder. At the same time that I apply this power to the stone (without withdrawing the apparatus,) I inject into the bladder a fluid that facilitates the *crumbling* of the stone.

With a power much less than what I have stated, I have ascertained that my apparatus will cut and crumble a stone of two inches and a half in its longitudinal diameter, and one inch and a half in its transverse diameter, and this a stone of a harder substance than that of any formed in the bladder, and in a moistened and comparatively softer state there than when removed from that organ and dry. A pleasing and interesting peculiarity in a little instrument I have invented, (called a sound,) for ascertaining if there be a stone in the bladder is, that if it detects the presence of one, it indicates to me the diameter of it. An interesting little *tell-tale* this, you will perceive it to be on viewing the apparatus collectively. The *power* I apply to the stone in the bladder for *cutting* it there, or for crumbling it there, is just what I might choose to exert. I can render it, with precise accuracy, equivalent to any weight from one pound to a *hundred and upwards*, or retain its acting at any intermediate power.

Many other interesting and important particulars connected with the use of my apparatus, I must defer an explanation of until you favor me with an interview, then you will have an opportunity of verifying, by ocular observation, what I have stated. I cannot however forbear remarking at present, that you will perceive by the apparatus, I shall not require any other assistant in performing the operation, than the patient himself, and we will not doubt that he would cheerfully assist me in removing from his bladder (without cutting or scarcely paining him) a stone that might have been nearly half as big as his fist.

I am sir, your obt, humble servt.

JAMES LEE HANNAH, M.D.

P. S. I beg leave to say that my stay in this city will not be longer than a couple of days, I then proceed to New York to embark for Europe.

STRANGULATED HERNIA, WITH PERFORATION OF THE INTESTINES.

— Duval, aged 40, had suffered from hernia for four years; about three weeks before his admission into the hospital, he was attacked with colic pains, flatulence, but neither vomiting or nausea; medicines were given to him, and the pains subsided. Fifteen days after this period, without any known cause, the tumor suddenly increased in bulk, and became hard, and painful; the abdominal pain returned, and he was seized with vomiting of a green matter, which soon, however, became stercoraceous, and occurred every quarter of an hour; he re-

mained five days in this state, being under the care of an ignorant person, when he was admitted under the care of M. Delpeau, with all the preceding symptoms, and obstinate constipation of the bowels. The operation was determined on without delay, and was performed the same day in No. 7 ward (Saint Jean); the hernia was formed by a portion of intestine of a black color, which was perforated by three small ulcerated openings, from which escaped, at first, a reddish colored fluid, but afterwards true fecal matter. An appropriate mode of treatment was pursued, and with success, for although the intestine was so far advanced in a state of gangrene, no bad symptom ensued, and twenty-five days after the operation, the patient was discharged well.

SCARLATINA SIMULATING RUBEOLA AT ITS COMMENCEMENT.

— Lebel, aged 9, was attacked on the evening of the 5th of October, with cephalalgia, slight symptoms of fever, pain in the throat, and difficulty of deglutition; on the succeeding morning he had violent shivering fits, vomiting, and epistaxis, the febrile symptoms were much more intense, and he became delirious; during the night an eruption had appeared on the skin.

The child was admitted into the hospital on the 6th, and then presented the following symptoms, anæmia, cephalalgia, violent fever, pulse of 120; the skin covered with a number of small red points, between which it preserved its healthy color, these spots were more numerous at the joints, than at any other part; the tongue was covered with a white coat, behind which were seen some of the papillæ very prominent; the amygdalæ were much swollen, and deglutition was performed with great labor; the pharynx appeared red and inflamed; the voice was hoarse; his bowels had been constipated since the commencement of the attack, but there was neither nausea, nor vomiting; he had no cough nor was there coryza, or effusion from the eyes. Borax of honey, emollient clysters, and low diet were prescribed.

7th. The eruption of scarlatina is now well marked; upon the abdomen and the superior part of the thighs there is a great number of miliary vesicles; the febrile symptoms are much less violent, but the pain in the throat, and the difficulty of deglutition, still remain.

The eruption had nearly disappeared by the 10th, the febrile symptoms and pain in the throat had much abated; on the succeeding day the patient was declared convalescent.

GENERAL RAMOLISSEMENT OF THE WHOLE CEREBRAL MASS—ALTERED STATE OF THE LEFT LATERAL LOBE IN WHICH THE LATERAL VENTRICLE COMMUNICATED WITH THE INTERNAL AUDITORY CANAL.

Hippolyte Athenee, aged 7, of a scrofulous constitution, and a lymphatic temperament, was brought to the hospital at the age of four years. At the time of his admission, there was found at the base of the left mastoid process a fistulous opening, from which flowed a great quantity of fetid greyish colored pus; the left side of the face was swollen, and appeared to be paralyzed, and the eye-lids of this side were everted. For some time before his death, the cellular membrane became infiltrated, and there was anasacra over the whole body to a great extent.

Autopsy. A vertical section of the cranium was made, and it was then seen, that the parts in the neighborhood of the petrous portion of the temporal bone were so extensively diseased, that it was impossible to recognize any structure; no traces were found of either the cavity of the tympanum, the small bones of the ear, labyrinth, vestibule, cochlea, or semi-circular canals; neither were there any vestiges of the acoustic nerve, but the orifice of the internal auditory foramen communicated directly with the left lateral ventricle, by means of a canal, formed in the substance of the brain, and through which the serum of the ventricle mingled easily with the purulent matter formed in the ear; the left lobe of the lung had contracted intimate adhesions with its membranes, throughout all its extent, and the whole cerebral mass was in a state of ramolissement, and bathed in serum.

Notwithstanding this extensive disease, the external ear was in a healthy state, and the ca-

nal was perfect; much serum was found in the cavities of the thorax and abdomen, but no other appearance of disease or alteration were found in either cavity.

TWO CASES OF CHRONIC ANGINA TONSILLARIS, CURED BY MAKING INCISIONS IN THE TONSILS.—BY M. BAUDENS, D.M.P.

G—, a soldier, belonging to the 11th regiment of dragoons, aged 28, had for some years suffered under chronic angina tonsillaris, which obliged him very frequently to enter the hospital. Incision of the tonsils was proposed as a remedy, and on the 20th of May, he proceeded to perform the operation of incising the glands with a double edged bistoury. He first divided the left tonsil, which was the largest, from below upwards, and then changing the bistoury into his other hand, divided the other tonsil in a similar way; the amygdalæ bled freely, and a gargle of mallows was prescribed, for the purpose of favoring the flow of blood. Eight days after the operation, this man left the hospital perfectly well.

A boy, aged 12, was attacked with chronic angina tonsillaris; since the age of five he had suffered considerably from slight attacks of this nature, and his health had become much injured. The amygdalæ were much swollen, and deglutition was, from this cause, performed with great difficulty; when the boy uttered any cries or wept, the glands approached each other and threatened suffocation; his breathing during sleep was stertorous; some months previous a sister of this patient had died from the same complaint. A few days afterwards the same operation as in the preceding case was performed, but with more difficulty, on account of the intractability of the patient. In this case, as in the former, the incision of the amygdalæ was crowned with perfect success; in a few days all the unpleasant symptoms disappeared, the glands diminished in size, and he was discharged perfectly well.

CHRONIC PERITONITIS—ASCITES TAPPED THIRTY TIMES—CURE.

A vine-dresser, aged 48, had for twenty-five years had an enormous scrotal hernia, which incommoded him only on account of its weight; he had slight fluctuation in the abdomen, but no pain. M. Dubroca, of Barsac, who attended the man, considered that he had slight peritonitis, and thought that it was probably occasioned by the scrotal hernia. Some time after he was seized with violent pains in the abdomen, which was enormously distended with fluid. The operation of paracentesis was practised, and a great quantity of fluid evacuated; mercurial frictions, the internal use of digitalis, and other diuretics were prescribed. At the end of two months the same operation was again performed, and again a large quantity of serum was evacuated. In the course of two years and four months from this time, he underwent the operation of tapping twenty-eight times, in all thirty: at the end of this period the fluid was no longer secreted, and six months from this time he was convalescent. He regained his flesh rapidly, and in fact the cure was perfect.

EFFICACY OF ANTIMONIAL POWDER IN NEURALGIA OF THE FACE.

A painter of Catania was seized, on the 5th of March, 1833, with a violent pain in the sub-orbital region of the left side of the face, preceded by vomiting and shiverings; the pulse, during the paroxysms of pain, was small, and the skin dry and rather hot; he had a sensation of general uneasiness, which diminished during the night, and at this time the pain in the face also abated a little. In the morning, however, the pains returned with renewed violence, and thus he continued till near the end of March, at which time his health became greatly disordered. Dr. Philippo Libra, having convinced himself of the nature of the complaint, prescribed sulphate of quinine, but this was continued for some time without the slightest amelioration.—Opium, bleedings, purgatives, blisters, &c. were used in vain. Seeing that the pains continued, without the slightest relief from the treatment hitherto pursued, antimonial powder, in doses of six grains, was given; on the same evening the pain was less violent, and, by a continuance of its use, they became sensibly diminished in intensity each day, and, by the end of March he was quite recovered.

COLICA PICTONUM—EMPLOYMENT OF SULPHATE OF MORPHINE IN LARGE DOSES.—CURE.

A man was admitted into the Hotel Dieu with all the symptoms of painter's colic. For the first five days he was submitted to the treatment ordinarily used in La Charitie; at the end of that time, the symptoms and the abdominal pains were just as violent as on the day of his admission. Two grains of the sulphate of morphine were given to him, and continued till evident symptoms of its narcotic effects were produced, and then all the symptoms vanished. This remedy, to which recourse has always been had in this hospital in cases of this nature, has generally been attended with success.

AMPUTATION OF THE PENIS BY A NEW PROCESS.

M. Poirson, chief surgeon of Gros Caillou, has lately amputated the penis by a new process; he first introduced a soft flexible sound, some inches longer than the ordinary ones, into the bladder, and, having directed an assistant to place one hand on the penis, close to the pubis, and to hold the loose end of the bougie and penis in the left, divided, with a small amputating knife, both the penis and bougie. M. Poirson states, that the introduction of the instrument facilitates the operation, and renders the search for the arteries more easy.

CASE OF VARICOSE VEINS SUCCESSFULLY TREATED BY THE APPLICATION OF CAUSTIC ISSUES.

Mary Walton, *ætat.* 39, admitted October 22, 1833, for a varicose state of the internal saphena vein, extending from the inner ankle to the middle of the thigh; the vein gradually enlarging from the ankle, and becoming, at the inner condyle, so much enlarged as to form a considerable projection, the vein being at least as large as a man's thumb, and exceedingly convoluted.

The disease came on about seven years ago, and soon afterwards an ulcer formed at the inner ankle, for which she received medical treatment; the ulcer remained open four months and then healed; the vein, however, increased in size, and has continued to do so to the time of her admission. The ulcer has repeatedly returned, never remaining healed more than two or three months at a time, but continuing open at least four.

The leg was at first bandaged for a short time, and then two large caustic issues were made across the course of the vein, one in the middle of the thigh, the other half way down the leg.

Nov. 22d. Sloughs from the issues came away; the leg is very stiff and painful, the vein being swollen in size, but hard and distended, and exceedingly tender on pressure.

30th. Vein much swollen, and also less painful; the leg is still stiff, has become slightly contracted, and cannot be straightened without giving very great pain.

Ordered to endeavor to bring the leg gradually straighter, and to have another issue made across the vein just above the situation of the ulcer.

Dec. 16th. Able to straighten the leg entirely; veins not above a quarter the size they were previous to the application of the issues; no pain in the veins unless pressed upon, they however still feel quite hard.

25th. Issues just healed; veins less and softer.

From the time of the issues healing the leg has been rolled, and pledgets of lint dipped in equal parts of tincture of myrrh and lime-water applied to the situation of the issues.

She has now left the hospital, experiencing no pain in the veins from pressure or otherwise. The vein is completely obliterated at the points where the issues were made; nevertheless, after standing, it is slightly distended, by the blood flowing into it from collateral communications; it is not more than one-sixth of its size at the time of her admission.

With respect to the application of caustic issues in these cases, causing phlebitis, Mr. Mayo stated, that he had now applied them in numerous cases, and with different degrees of severity, even to producing sloughing of the vein itself, but that in no case had the practice been followed by phlebitis. Mr. Mayo does not recommend this practice indiscriminately; the constitution and age of the patient, the number of nervous trunks affected, are the principal points which have to be considered, and upon which the expediency of the practice turns.

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, SEPTEMBER 3, 1834.

No. 39.

STIMULANT TREATMENT OF PURULENT OPHTHALMIA.

By Mr. Walker, Eye Institute, Manchester.

CASE 1.—George Johnson, ætat. 27, butcher, admitted into the Manchester Eye Institution, July 10th, 1833, was attacked, fourteen days since, with puriform discharge from the right eye, the disease commencing in the left on the following day. He experienced great heat and swelling, with considerable pain, and observed very little difference in the state of either eye after the first day or two. He has not seen any thing since the second day of the attack, the lids being so greatly swollen. He applied to a medical man within the first two or three days, who ordered *five leeches* to the right eye, a fomentation of poppies and camomiles, and some purgatives, with bread and milk poultices, and a lotion. This was all that was done for him in the way of treatment. The pain was so violent for the first week, as to prevent sleep, but is now somewhat abated, although he cannot yet sleep long at a time. The puriform discharge has not been so copious during the last few days. He is now unable to see any object, but can discern light. There is still considerable swelling of the palpebræ, externally: the conjunctiva is extremely vascular, and is elevated above the cornea, and there is chemosis, and the corneæ of both eyes are *perfectly opaque throughout*, and of a sloughy aspect. He thinks that he caught cold from sleeping in a damp bed a few days previous to the attack, and says that he had some discharge from the urethra.

This poor man, after he had lost the sight of both eyes, and spent all his money, was then sent to Manchester for further advice, when the *argentum nitratum* was applied freely to the surface of the conjunctiva, and a solution of *sulphate of copper* was ordered to be used as a lotion, with an occasional purgative.

July 11. Discharge less. Applied the nitrate twice to-day.

July 12. Symptoms more favorable; the pain, swelling, and discharge, diminished; the corner of the left eye clearer; can discern more light. The nitrate was applied this morning. In the afternoon, at the recommendation of Mr. Windsor, six leeches were applied to each eye, and a blister to the nape of the neck.

13 Same as yesterday. Rep. *Argent. Nit.*

14. The corner of the left eye becoming clearer: he can now discern his finger when held before this eye. Rep. *Argent. Nit.*

21. He can now, with the left eye, discern persons moving around him, when in a weak light. The right eye is better also; he can discern light with it. The nitrate has been applied every day to both eyes since the last report.

Aug. 3. Progressively improving. The eyelids are still vascular, but the swelling has sub-

sided. The cornea of the left eye is clear, except at the upper part, where a fold of the conjunctiva has become adherent, forming a regular ptergium, which was this day excised, as also was a much larger one from the cornea of the right eye. Has been able to walk about the streets during the last week, his vision being so much improved.

It is needless to detail further the progress of this case. Suffice it to say, that at the end of the month he left the institution with very fair vision. A degree of central opacity of the corneæ still remained, but not more than frequently continues after slight attacks of disease of the eye.

CASE 2.— — Bland, aged one month, was brought to me June 28, 1833. The infant was attacked with purulent ophthalmia, when two or three days old. The surgeon had ordered leeches, eye lotions, &c., without being able to check the progress of the complaint. The left eye is collapsed, the humors having been evacuated. The right eye has an ulcer of some size on the cornea, between its inner margin and the pupil, and which seems very likely to perforate the anterior chamber. There is a thick puriform discharge constantly escaping from both eyes, and the eyelids are much tumefied and very vascular. The *Argent. Nitrat.* was applied to each eye, upon the conjunctiva of both lids, touching also the ulcer of the right. *Lotio Cupri. Pulv. Purgans.*

29. Discharge somewhat less; tumefaction less. Apply *Arg. Nit.*

July 10. Gradual improvement each day. For the last two or three days the infant has opened both eyes in a moderate light. The puriform discharge has nearly ceased. Apply *Argent. Nit.* every other day.

19. The ulcer has quite healed, leaving scarcely any opacity, so that the right eye is now perfectly sound. The left has ceased to be an object of attention, being irrecoverably lost, but quite free from irritation.

Remarks.—From the great want of success attending the ordinary treatment of purulent ophthalmia, one would infer that it still remains vague and unsatisfactory. Practitioners appear to be yet unable to make up their minds on the stimulant treatment. In the mean time, unluckily, their patients are the sufferers, the organ of vision in this formidable affection becoming lost before the surgeon sees his way clearly before him, bewildered by the opposing directions laid down for his guidance. In many instances, it is to be feared, a less plausible excuse must be given for the lamentable want of attention bestowed on many of these unfortunate cases.*

Of all the various inflammatory diseases to which the eye is subject, there is none so frequently followed by total loss of vision as the one in question. The unhappy victims meet us at every corner of our streets,—our asylums for the blind are crowded with them, every public hospital in the kingdom is constantly turning out upon society helpless objects who have fallen a prey to this destructive malady, the misery and wretchedness of whose situation are but too notorious. Indeed, it may be safely asserted, that more persons become blind from this disease than any other, and perhaps than all others combined. The number of children every year disfigured, and rendered a source of unhappiness to their friends, must be prodigious. If we had the means of presenting them to the world in round numbers, the statement I am sure would be appalling.

To arouse the attention of practitioners, then, to the subject of a disease which entails such disastrous consequences, can scarcely be deemed superfluous. The treatment laid down in the writings of most of our best authors is the antiphlogistic, by which is of course understood, bleeding, general and local; counter-irritants, such as blisters, &c.; emetics, purgatives, &c. On the other hand a few have advised a contrary course—namely, the application of local stimulants to the organ, combined with a certain portion of the antiphlogistic treatment.—Among the more recent advocates of the former treatment, may be mentioned Mr. Lawrence and Mr. Travers; as supporters of the latter treatment, Mr. Guthrie, Mr. Mackenzie, and others, may be noticed.

* I have seen a case, within the last few days, of total blindness from this disease in an infant, in which the friends had been advised to apply milk and bread poultices to reduce the swelling, after which it was confidently predicted that all would be right.

It might easily be made to appear, that the term antiphlogistic is equally applicable, whether the depressant or the stimulant treatment is used, since both means may remove inflammation; and I think it may be as clearly made out, that in this particular inflammation the latter is pre-eminently entitled to that term. Our present business, however, is rather to deal with practical facts than terms of art.

It is remarkable that the advocates of either practice seem to consider theirs respectively as the most efficient plan. Thus, Messrs. Travers and Lawrence make bleeding their sheet-anchor, whilst they also recommend the nauseating practice, &c., so as to reduce the system to the lowest practicable point. On the other side we are told that the expenditure of the vital fluid is unnecessary, and that we have nothing to do but to apply our stimulants, and the disease is checked. Now, if it be made clear, on the one hand, that by taking away large quantities of blood, by keeping the patient in a state of *constant nausea, perspiration, and faintness*, &c., we shall be able to arrest this formidable disease; and, if it be made equally clear, that the same success will attend the stimulant plan, it will be very easy to determine which is the best for the patient, since no one would choose the former, if equal reliance can be placed on the latter course of proceeding. But the case must be put on a different footing even from this. The cases I have witnessed of this disease have been numerous. I have seen large quantities of blood drawn from the veins, leeches in considerable quantity applied to the eyelids, and the nauseating system fully tried, and yet I have found the disease proceed in the onward march, with its train of ulceration, sloughing, evacuation of the humors, and destruction of the globe. In severe cases this seems the inevitable result, if no other plan be adopted.

On the other hand I have seen cases where nothing but stimulants have been resorted to—employed at once. In such instances, when efficiently used, the disease has been instantly checked, and the suppurative and sloughing processes have been arrested, with an immediate abatement of all the symptoms. In cases where the stimulant plan has been adopted, previous to ulceration having commenced, that process has always been prevented,—a fact which cannot be stated of the depressant practice.

The mode of applying the stimulants has been somewhat varied. The nitrate of silver seems to be the favorite substance employed in these cases. By some it has been recommended in the form of solution in water, of various proportions, or made up into an ointment. My own experience has led me to prefer the application of the solid substance. A very unnecessary degree of delicacy seems to be entertained by some persons about the application of this substance to the eye. Strange, indeed, it is that we should be allowed to use stimulants of all sorts to the mucous membrane of the mouth, throat, stomach, intestines, &c., and yet be refused their employment when we come to the mucous membrane of the eye. We may give sulphate of copper internally, with one physician, and nitrate of silver with another, but on no account are we to touch the conjunctiva with these applications. It is considered too irritable a part; its sensibility is said to be too exquisite; we must rather risk the destruction of the eye than touch it with any powerful stimulant. Successful practice, however, will prevail over a timid and fatal theory.

LECTURE.—PATHOLOGY AND TREATMENT OF GASTRITIS.—BY WILLIAM STOKES, M.D.

Delivered at the Medical School, Park street, Dublin.—Session 1833-34.

GENTLEMEN,—There is one point connected with the treatment of gastritis which I have not yet touched upon—the use of blisters; and as this is the first time I have spoken of them, I shall make a few remarks on their general application.

It is a great error to think that blistering is a matter of course in inflammatory diseases, or that the proper period for their application should not be carefully marked. It is a common idea, that if a blister does no good it will do no harm; that it is probable some benefit may result from its employment, and that you may try it at all events. I need not tell you that all this is wrong, and that we must be guided by exact principles in this as well as in every other part of practical medicine. I am afraid there is a great deal of loose reasoning and empirical practice connected with this subject, even at the present day. Here is the general rule by

which you should be invariably guided. No matter what kind of disease you have to deal with, if it be inflammatory, blistering in the early stage of it is decidedly improper. I might amplify this rule, and say, that if the disease be inflammatory and in its early stage, or if, under such circumstances, the symptoms require the general or local abstraction of blood, blisters cannot be used with propriety. The truth is, that many persons take a very limited view of this subject; they look upon blisters as merely revulsive agents, which, by their action on the surface, have the property of diminishing visceral inflammation. This I am willing to allow is true to a certain extent, but there is abundant evidence to prove, *that blisters have sometimes a direct stimulant effect on the suffering organ*. That this occasionally occurs has been established by many facts in medicine; and I have not the slightest doubt, that the application of a blister over an organ in a state of high inflammatory excitement will certainly be productive of injurious consequences. But if you apply them at the period when stimulation is admissible and useful (and there will always be such a period in every inflammation), you then act on just principles, and will generally have the satisfaction of finding your practice successful. The greatest empiricism is sometimes practised in the application of blisters to the head in acute inflammation of the brain. You will see in Mr. Porter's admirable work on the Pathology of the Larynx, how strongly he is opposed to the early use of blisters in acute laryngitis. Dr. Cheyne, also, may, among many others, be quoted in support of this doctrine.

If there is one system more than another likely to be injured by early blistering, it is the digestive. Broussais says, that blisters should not be applied in any of the stages of acute gastro-enteritis, and that in the early stage their application is the very height of malpractice. I do not go so far as to say that they should not be applied in any period of the disease, for when the skin is cool, the pulse lessened, and the local inflammation so far reduced as not to require the abstraction of any more blood, I think you may employ them with very considerable advantage. I shall again return to the subject of blisters; and will for the present merely remark, that blistering is almost always mismanaged, in consequence of persons who apply them being ignorant of their stimulating effects on organs. They generally allow them to remain on too long, and the consequence of this is often violent excitement of the organ over which they are applied, great constitutional irritation, strangury, and bad sores. The best mode of using them is to direct the person who prepares the blister to cover it with a piece of silver-paper before it is applied, and having put it on with the paper next the skin, to let it remain until a decided sense of smarting is produced, when it should be immediately removed. By adopting this plan, you will save yourself and your patient a great deal of inconvenience; you will have no strangury, stimulation of the whole economy, or excessive local irritation, and the inflamed surface will heal kindly. The mode (too often practiced) of applying a blister sprinkled all over with an additional quantity of powdered cantharides, and leaving it on for twelve, twenty-four, or even thirty-six hours, particularly in the case of females, is nothing better than horse-doctoring. During a seven years' experience in the hospital at Tours, Brettonneau, by attending to this principle, never had a case followed by these troublesome symptoms, and yet he never failed in producing the necessary degree of counter-irritation. The active principle of cantharides, being soluble in oil, exudes through the silver-paper in sufficient quantity to produce the necessary effect on the skin, without exposing the patient to the risk of having too much irritation excited by the direct application of the blistering plaster to the cutaneous surface.

With respect to emetics, I need not tell you that they can be very seldom used in acute gastritis, and that all your efforts should be directed to obviate and remove vomiting. But are we to interdict their use altogether? There are some few cases where we are compelled to use them; as, for instance, in cases of acute gastritis caused by swallowing corrosive poison, by the irritation of indigestible food remaining in the stomach. The first step, to be taken in a case of corrosive poisoning, is to evacuate the stomach. In the same way, when you are called to treat a case of gastritis produced by indigestible aliment, you must commence by giving an emetic. But even here the emetic is admissible only in the early period; and you should never trust to its operation for removing the gastritis altogether, unaided by other therapeutic

means; nor are you to conclude, that because you have produced vomiting you have succeeded in curing the disease. The same principles apply to the use of purgatives in enteritis as to emetics in gastric inflammation;—we should never have recourse to them except where inflammation is kindled and kept up by the presence of irritating matter.

There are two cases in which certain affections are complicated with an acute gastritis; and as these complications are not sufficiently known, and have been scarcely noticed by systematic writers on gastritis, I am anxious to draw your particular attention to them. One of these is *Hæmatemesia*, the other that disease which has been termed *delirium tremens*. There are cases of vomiting of blood, which are little more than acute gastritis, in which there is a copious secretion of blood from the mucous surface of the stomach. Vomiting of blood may arise from various causes. It may be vicarious, as in the case of females, where the menstrual flux is suppressed; it may be accidental, as from the rupture of a blood vessel; or it may be caused by mechanical obstruction to the circulation, either in the liver, spleen, heart, or lungs. But there is a species of gastritis, in which there is a copious vomiting of blood; or there is a hæmatemesis, of which the cause is gastric irritation. How are you to recognize this form of the disease?—The patient is vomiting blood; but then he has fever, hot skin, and excited pulse. Again, you will see some peculiar modification of the tongue; you will find ardent thirst and longing for cold drinks; you will observe fullness and tenderness of the epigastrium; you may have severe local pain; finally, you will have all these symptoms occurring in a person who, previously to the attack, exhibited nothing capable of accounting for the hæmatemesis. Here, then, we have an hæmorrhagic gastritis, very little known, and too often improperly treated. The ordinary practice, in such cases, is to give astringents. Astringents are very good and useful where they are clearly indicated; but there are many forms of disease where their routine employment is productive of a great deal of mischief; and I believe lives are sometimes lost by looking upon this affection as a simple hæmatemesis, and by practitioners contenting themselves with the use of astringents. But where you have the symptoms of this form of gastric irritation present, where, in addition to the vomiting of blood, you have fever, and thirst, and hot skin, and pain, and epigastric tenderness, you may be sure that it is a gastritis, and that the best treatment is leeches, iced water, and the other means recommended in the treatment of gastric inflammation. It may happen that, under this treatment, the vomiting of blood will not entirely subside; but the pain, the thirst, the fever, and epigastric tenderness will subside, and then you can with propriety give astringents. The best thing you can do in the commencement is to leech freely, give iced lemonade, and cold water; prohibit every thing purgative, stimulant, or astringent; and then, when you have reduced inflammation, if the hæmatemesis continues, have recourse to astringents.

A few words now with respect to the other complication,—*delirium tremens*. You have all seen cases of *delirium tremens*, but you are not, perhaps, aware that it arises under two opposite classes of causes. In some cases, a patient who is in the habit of taking wine or spirituous liquors every day in considerable quantities, meets with an accident or gets an attack of fever. He is confined to bed, put on an antiphlogistic diet, and in place of wine or whisky punch, gets whey and barley water. An attack of *delirium tremens* comes on, and symptoms of high cerebral excitement appear. Another person, not in the habit of frequent intoxication, takes to what is called a fit of drinking, and is attacked with *delirium tremens*. In the first case the delirium arises from a want of the customary stimulus, in the second from excess. In each the cause of the disease is different; and consequently, with this view of the subject, it would be a manifest departure from sound practice to treat both cases in the same way. Yet, I believe, this error is frequently committed, even by persons whose authority is high in the medical world, and is part of a system not yet exploded,—*the system of prescribing for names and not for things*. The patient is treated for a disease which has been called *delirium tremens*, the present symptoms are only attended to, and the cause and origin of the affection are overlooked. What are the true principles of treatment?—In the first variety, where the delirium is produced by a want of the customary stimulus, there is no doubt that patients have been cured by the administration of the usual stimulants, by giving them wine, brandy, and opium. Indeed this seems to be the best mode of treating this form of the disease. But is it

proper or admissible in the second variety, where the delirium is caused by an occasional excess in the use of ardent spirits?—Certainly not. Yet what do we find to be the ordinary practice in hospitals when a patient is admitted under such circumstances?—A man who has been attacked by delirium tremens after a violent debauch, is ordered a quantity of porter, wine, brandy, and opium; and the worse he gets, the more is the quantity of stimulants increased. Now this practice seems to me as ridiculous as the old principle of treating a case of hydrophobia with a hair of the dog that bit. Let us consider what the state of the case is. A large quantity of stimulant liquors have been taken into the stomach, the mucous surface of that organ is in a state of intense irritation, the brain and nervous system are in a highly excited condition from the absorption of alcohol, or in consequence of the excessive sympathetic stimulation to which they have been subjected. Are we to continue this stimulation?—I think not. What would be the obvious and natural result? Increased gastric irritation, encephalitis, or inflammation of the membranes of the brain. The supervention of inflammatory disease of the brain in delirium tremens is not understood by many practitioners, and they go on administering stimulant after stimulant, totally unconscious that they are bringing on decided cerebral disease. I have witnessed the dissections of a great many persons who died of delirium tremens, and one of the most common results of the dissection was, the discovery of unequivocal marks of inflammation in the brain and stomach. Broussais considers all such cases as merely examples of gastritis, and ridicules British practitioners for inventing “a new disease;” but in this he is certainly wrong, for there have been several cases in which no distinct marks of gastric inflammation could be discovered. In all cases however, where the delirium supervenes on an excessive debauch, there is more or less of gastritis; and though it may occasionally happen, that a patient under such circumstances may recover under the stimulant treatment, yet I am convinced that the physician will very frequently do harm by adopting it.

This complication of delirium tremens with gastritis is also exceedingly curious in another point of view, as it illustrates how completely the local symptoms are placed in abeyance, and, as it were, lost during the prevalence of strong sympathetic irritation. The patient’s belly will not be tender; the tongue may not be red; the symptoms present may be indicative of a mere cerebral affection, and yet intense gastric inflammation may be going on all the time, and all the appearances of cerebral disease be quickly removed by treatment calculated to subdue a gastritis. Is this all theory? No; for we have practised on this principle with the most extraordinary success in the Meath Hospital. We have seen cases of violent outrageous delirium subside under the application of leeches to the epigastrium, and iced water without a single drop of laudanum. I beg of you, if you meet with any cases of delirium tremens under such circumstances, to make trial of this mode of treatment, and record its effects, for it is important that they should be more extensively known, I have seen the whole train of morbid phenomena, the delirium, the sleeplessness, the excessive nervous agitation, all vanish under the application of leeches to the epigastrium. In some cases where after the sleeplessness and delirium were removed by this practice, and the tremors alone remained, we have again applied leeches to the epigastrium, and succeeded in removing the tremors also. On the other hand, where a stimulant plan of treatment was employed, and the patients died, we have most commonly found inflammation in two places, in the stomach, or in the brain or its membranes. The rule, then, is this,—in a case of delirium tremens from the want of a customary stimulus, use the stimulant and opiate treatment; but when it comes on after an occasional violent debauch, such remedies must be extremely improper. Adopt here every thing calculated to remove gastric irritation. We have facts to show that most decided advantage may arise from the application of leeches, even where the symptoms of gastritis are absent.

We come now to consider chronic gastritis, an extremely interesting disease, whether we look upon it with reference to its importance, its frequency, or its Protean character. It is commonly called dyspepsia, and this term, loose and unlimited in its acceptation, often proves a stumbling block to the student in medicine. Dyspepsia, you know, means difficult digestion, a circumstance which may depend on many causes, but perhaps on none more frequently than upon chronic gastritis. In the great majority of dyspeptic cases, the exciting cause has been

over stimulation of the stomach, either from the constant excess in strong, highly seasoned meats, or indulging in the use of exciting liquors. Persons, who feed grossly and drink deeply, are generally the subjects of dyspepsia; by constantly stimulating the stomach they produce an inflammatory condition of that organ. Long continued functional lesion will eventually produce more or less organic disease; and you will find, that in most cases of old dyspepsia there is more or less gastritis. But let us go farther, and inquire whether those views are borne out by the ordinary treatment of dyspeptic cases. When you open a book on the practice of physic, and turn to the article dyspepsia, one of the first things which strikes you is the vast number of cures for indigestion. The more incurable a disease is, and the less we know of its treatment, the more numerous is the list of remedies, and the more empirical in its treatment. Now the circumstance of having a great variety of "cures" for a disease, is a strong proof, either that there is no real remedy for it, or that its nature is very little understood. A patient afflicted with dyspepsia will generally run through a variety of treatment, he will be ordered bark by one practitioner, mercury by another, purgatives by a third, in fact, he will be subjected to every form of treatment. Now all this is proof positive that the disease is not sufficiently understood. What does pathology teach in such cases? In almost every instance where patients have died with symptoms of dyspepsia, pathological anatomy proves the stomach to be in a state of demonstrable disease. It appears, therefore, that, whether we look to the uncertainty and vascillations of treatment, or the results of anatomical examination, the case is still the same; and that, where dyspepsia has been of considerable duration, the chance is that there is more or less of organic disease, and that, if we prescribe for dyspepsia neglecting this, we are very likely to do mischief. I do not wish you to believe that every case of dyspepsia is a case of gastritis. This opinion has brought disgrace on the school of Broussais. His disciples went too far, for whether the gastric derangement depended on nervous irritation, or anæmia, or disease of the liver, or mental emotion, they prescribed leeches and water diet, and thus very often brought on the disease they sought to cure. We may have functional disease, independent of structural lesion in the stomach, as well as in any other organ; it is no unusual circumstance, and the practical physician meets with it every day. A great deal of confusion, however, arises from the similarity of the symptoms. I remember an accomplished friend of mine getting into disgrace with one of the members of a board of examiners on this subject. He was asked to tell the difference between the symptoms of chronic gastritis and dyspepsia, and in reply stated that he could not. For this he was nearly rejected, but I believe, on a candid review of the circumstances, you will agree with me, that he knew more of the matter than the learned professor. In ninety-nine cases out of a hundred of chronic gastritis, there is no fever, scarcely any thirst, often no fixed local pain, and this leads persons away from any idea of the existence of an inflammatory condition of the stomach. What are the symptoms of a chronic gastritis? pain of occasional occurrence, flatulence, acidity, swelling of the stomach, fetid eructations, sensation of heat and weight about the epigastrium, and perhaps vomiting. Well, these are also the symptoms of dyspepsia, whether it be accompanied by inflammation or not. How then, when called to a case of this kind, are you to determine the point? I must mention to you here, that it is often hard to do this with certainty. There are two circumstances, however, which you should always bear in mind, as they will afford you considerable assistance in coming to a correct diagnosis; *first, the length of time which the disease has lasted*; secondly, the result of the treatment which has been employed. You will find, that where the disease is a chronic gastritis, that it has been of some duration, that it has come on in an insidious manner, and that it has been exasperated by the ordinary treatment for dyspepsia. Many persons think, that if you give a patient medicine, without regulating his diet or issuing a prohibition against full meals, that you can cure him, and that, as he has no fever, and can go about his usual business, there is no necessity for antiphlogistic regimen. But as the disease goes on, he complains of pain in the stomach during the process of digestion, feels uneasy after dinner, there is an unpleasant degree of fullness about the epigastrium, he also experiences a variety of disagreeable symptoms, sometimes being annoyed with pain in the chest, sometimes he says he feels it in the region of the heart, and sometimes about the cartilages of the eighth and ninth ribs. These symptoms

subside after the process of digestion is completed, but during its continuance they harass the patient. Very often relief is obtained by vomiting, and hence some persons are in the habit of throwing up their food for the purpose of relieving themselves, and consequently can have no benefit by it. In some cases digestion goes on until the food seems to reach a particular point, and then an acute feeling of pain is experienced. In these cases the gastritis is generally circumscribed, and is likely to terminate in circumscribed ulceration. Various fluids are rejected from the stomach, during the course of a gastritis; sometimes acid, sometimes alkaline, sometimes insipid and sweet, sometimes bitter and bilious. There is generally a degree of fullness about the stomach, and the epigastrium is tender on pressure, but no decided tumor either of the pylorus, liver, or spleen, although the epigastrium presented that appearance of fullness and tension, termed by the French, "*renitence*." The bowels, too, are constipated, and this is a matter worthy of your attention, for it sometimes unfortunately happens that the practitioner mistaking the gastritis for simple constipation, goes on prescribing purgative after purgative, until the patient gets incurable disease of the stomach. I know a case of a lady who gets one stool a week by taking eight drops of croton oil. Some years ago, she was in the enjoyment of excellent health; her bowels happened to get confined, and she was treated by a systematic practitioner with continued purgatives; her bowels are now completely torpid, except when they are subjected to this unnatural stimulus. There are thousands of persons treated in this way, because practitioners look to consequences and not to causes.

There is one remarkable difference between acute and chronic gastritis, which deserves your attentive consideration, as it exemplifies a law applicable to all viscera under similar circumstances, and this is, that the sympathetic irritations are not so frequent or so distinct in chronic inflammation as in the acute form, and hence, in a case of chronic gastritis, we almost never have fever, and the affections of the nervous respiratory or circulating systems are by no means so well marked. It may even go on to actual disorganization of the stomach, and yet the patient will not complain of any particular symptom during its whole progress, which you could set down as depending exclusively on the sympathetic irritation of gastritis. Some of these cases, called dyspeptic phthisis, by Dr. W. Philip, are most probably examples of the sympathetic irritation of the lungs from chronic gastritis. Another case, respecting which much error prevails, is what has been called hypochondriasis. Persons laboring under these affections are condemned to run the gauntlet of every mode of treatment, sometimes (and fortunately for themselves) they are sent to travel, sometimes they are treated with musk and antispasmodics, then with the mineral acids, then with purgatives and mercurials, and lastly with bark, nitrate of silver, and stimulants. They go about like spectres from one practitioner to another, trying remedy after remedy, alternately sanguine with hope or saddened by disappointment, until at last they die, and, to the astonishment of all the doctors, the only disease found, on dissection, is inflammation and thickening of the mucous surface of the stomach. A condition, which, under these circumstances, it was difficult to say whether it was the original disease, or produced by "*fair trials*" of a number of powerful agents. Hypochondriasis is not always gastritis; but it is now found, that in many cases it commences and terminates with disease in the upper portion of the digestive tube and the assisting viscera. This you must always bear in mind.

Chronic gastritis terminates in various ways. Sometimes the inflammation is limited to a particular spot of the stomach, and here we frequently discover circumscribed ulcerations. In very bad cases these ulcers go on perforating the various coats of the stomach, until at last the contents of that organ escape into the serous cavity of the abdomen, and the patient rapidly sinks under a fatal peritonitis. It does not follow, however, that in all cases of perforation the contents of the stomach get into the peritoneum, causing death. Very often adhesions are formed, and the base of the ulcer is the serous covering of some other portion of the digestive system, or a false passage may be formed into the colon. One of the most common terminations of a chronic gastritis is, that the inflammation extends to other viscera; the patient gets disease of the liver, spleen, peritoneum, or lungs, and sinks under a complication of disorders. It was somewhat in this way that Napoleon died. He labored for a considerable time under chronic disease of the stomach, which seems to have been overlooked by his medical attendants, and this terminated in the extension of disease to various other organs. •

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MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
BY GRANVILLE SHARP PATTISON, M.D.
Prof. of Anat. in Jefferson Med. Col., Philada.
ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I. WASHINGTON, SEPTEMBER 10, 1834. No. 40.

LECTURE ON THE PHYSICAL EDUCATION AND DISEASES OF INFANTS AND CHILDREN.

By Dr. Ryan, at the Westminster Dispensary, 1833.

Ablactation continued—Sleeping and Watching—Muscular Motion—Exercise—Placing an Infant on its Feet—Locomotion, or Walking.

GENTLEMEN,—At our last meeting I was describing the received opinions upon ablactation, or weaning, when our time expired ; and I shall now conclude the remaining observations on the subject.

It is very generally maintained, that the eruption of the teeth is a natural indication of the necessity of a more solid aliment than milk for the nutriment of infants, and that weaning should be commenced. As a general proposition this is a valid one, but, like all others, is liable to exceptions. It may guide us when the infant is healthful, but not when it is delicate or infirm. Every medical practitioner knows, that the process of dentition varies very considerably, as regards the time of its commencement, some infants have teeth before the sixth, and others no sooner than the twelfth or sixteenth month of their age ; for the first, it would be too soon to advise ablactation ; for the latter, it would be too long to delay it.

Some writers hold that the age of an infant is the best guide ; but this cannot be followed, because constitutions and growth differ so widely, that an infant of six months old may be more vigorous than another of eighteen months. As a general rule, however, the propriety of weaning may be determined by the presence of the milk teeth, the vigor of the infant, the health of the mother or nurse, and the season of the year.

When the nurse becomes thin, delicate, nervous, dyspeptic, or when she labors under any acute or chronic disease, she will be injured by lactation ; the infant will not obtain a sufficient nutriment, and consequently it will emaciate and become diseased. As a general rule, we may say, whenever the breast milk is altered in quality, or diminished in quantity, other food is necessary for the infant ; and ablactation must be commenced, or artificial aliment supplied.

The occurrence of pregnancy or menstruation, is generally supposed to alter the quality and diminish the quantity of breast milk, as in such cases the determination of blood to the womb, diminishes the supply of this fluid to the breasts, and consequently there is a less secretion of milk. This proposition, as a general one, is valid, but is of course liable to exceptions. Thus some pregnant women continue to supply an abundance of milk, even to the hour of parturition. Professor Dewees states positively, that he “ has seen several instances, where children were suckled with impunity until others were born ; and other cases more numerous, where children were weaned at the usual time, though the mother was sometime advanced in

pregnancy, without the smallest injury having been done to children so circumstanced ; while others, again, were obliged to be taken from the breast at a very early period, in consequence of the injurious effects of deteriorated milk." The rule he lays down is this,—when the milk disagrees with the infant, ablactation is necessary ; when it does not, lactation ought to be continued for the usual period.

The same experienced author informs us, that he had seen infants applied to the breasts during continued and yellow fevers, without the slightest injury. This immunity was repeatedly observed in this country, during the epidemic or malignant cholera of 1832, as well as on many former occasions, and is known to all observant physicians. Nevertheless, these facts do not controvert the validity of the axiom, that the breast milk is deteriorated by all acute and chronic diseases, and its physical properties modified by the passions of the mind and the various aliments. It seldom happens that infants are applied to the breast during acute diseases or fevers, or suffered to receive aliment from this source only ; indeed, common sense, as well as physiology and pathology, would oppose such a proceeding. As the infant receives other food besides the mother's milk in such cases, we must fairly infer, that we want more evidence to confirm the conclusion, that it would escape injury and acquire sufficient nourishment under the existence of acute disease.

Some authors have entertained the position, that the degree of intelligence of an infant must influence our decision on the propriety of ablactation. The degree of intelligence will depend upon the health of the infant in most cases, though it often happens that weak rickety children evince a greater portion of it.

Dr. Struve was of opinion, that weaning should take place at the sixth month, because after this age, the mental faculties begin to expand, the recollection is stronger, so that the infant cannot easily forget the breast. There is some truth in this position ; but the appearance of teeth, the state of the health, and the strength of the infantile constitution, and the other circumstances already mentioned, are our surest guides as to the proper period for ablactation. It would be an injudicious practice to advise weaning, when the child's health is bad, while it is teething, or laboring under severe diarrhœa, or acute disease of any kind, as the breast is a certain source of tranquillity, a kind of sedative, in all the diseases and varieties of temper of infants.

When the infant is vigorous and lively, it may be allowed more solid food than milk, as soon as the teeth appear, and even earlier ; and by accustoming it to this change of diet, and amusing it very much, it will forget the breast, and only require it occasionally during the day, and, after some time, once or twice at night. It is an objectionable practice to smear the nipple with bitter substances, such as softened aloes, soot, &c. to disgust the infant ; a plan adopted by many of the lower and middle classes of society, and even recommended by Dr. Dewees. He advises us to excite the infant's aversion to the breast, by touching the nipples with some bitter or disgusting substance, as aloes, garlic, assafoetida, or covering them with a forbidding one, as black wool, ink, court plaster, &c. When the child is gradually accustomed to take other food, and very much amused by its mother or other attendant, it will forget the breast, or seldom require it ; and therefore exciting aversion to it is unnecessary, and, in general, decidedly unnatural.

The change of diet from breast milk to other food deserves due consideration. The proper mode of nourishing a child, about to be weaned, is to exhibit bread and milk, not boiled together, but the bread steeped in boiling water, reduced to a pulp or pap, and tepid or warm milk added, with a small portion of loaf sugar. This may be given with a spoon, the head of the child being raised between the recumbent and erect positions, and nature will point out the quantity necessary for a repast. An excellent diet is composed of the gravy of any of the red meats, mixed with bread crumb, mealy potato, the starch of which forms most of the arrow-root of commerce, arrow-root, sago, tapioca, pearl barley, semolina, rice, salep, &c. Let this be the principal diet, and the breast presented as seldom as possible.

The process of weaning is very much facilitated by allowing the infant to drink from a cup, which it seizes with avidity, care being taken, not to suffer it to swallow too rapidly, as what-

ever fluid it takes may get into the larynx, "go with the breath," and excite convulsive coughing. Milk alone, or mixed with a sixth part of tepid water, or tea, may be given in this manner. Though an infant may be allowed to drink from a cup or other vessel after the fourth or sixth month, it is bad it should do so at an earlier age, or when it is nourished by the breast, for this reason, that suction excites the secretion of saliva, which facilitates digestion, and is as necessary to an infant, as mastication is to an adult.

It is a great error to over-feed children at the time of weaning, or to exhibit solid food, such as meat of any kind. The farinaceous aliments already recommended are prepared, as if by mastication, for the action of the stomach; but solid animal food, however well minced, cannot be duly acted on by the gastric fluid. It passes partially changed from the stomach, irritates the bowels, causes griping, and excites scrofula, rickets, water in the head, consumption, and other diseases of the lungs. In fact, a child, even of two or three years of age, is injured by solid animal food, as the process of mastication is imperfectly performed, or, to use a popular expression, the child "bolts its food." Hence we daily observe gastro-intestinal irritation, depraved motions from the bowels, vitiated urine, enlarged abdomen, picking at the nose and lips, variable or voracious appetite, intense fever at some time of the day, infantile remittent fever, enlarged mesenteric glands, rickets, &c. These are the commonest diseases of children. If we inquire—has the mother been particular about the infant's diet, she usually replies in the negative, and says, "she allows it to take food with the family." This is acting contrary to nature and the laws of physiology, and hence it is followed by serious evils.

The last precaution I have to mention, with regard to ablactation, relates to the season of year most congenial to this process. It would be manifestly improper to commence weaning in the winter, or in the early part of spring, because certain infantile diseases are most common at these seasons, and these would be aggravated by this process. The end of spring, the whole of summer and autumn, are therefore considered the best seasons for ablactation.

The treatment of the nurse deserves attention. Mothers and nurses often suffer considerable inconvenience in weaning infants. The secretion of milk generally continues for some time, and may be abundant. It may distend the breast, and excite inflammation. To obviate or prevent these occurrences, the diet and drink should be diminished, the breasts partially drawn when distended, and fomented with a decoction of poppy-heads and camomile, and afterwards smeared with warm almond or olive oil, and the bowels should be regulated every other day. The irritation of the bowels by purgatives will determine both blood and nervous influence, as in all cases, to these parts, diminish both in every other organ of the body, and consequently in the breasts, and therefore there will be less blood sent to these organs, and less milk secreted. Purgation is therefore one of the best means of suppressing the lacteous secretion. Some writers recommend the local application of vinegar and water, and others, belladonna and hyoscyamus. The following formula is strongly advised by Dr. Ranque, of Orleans, which, he says, will prove effectual in three or four days:—

R. Aquæ lauri ceras. ℥ ij,
 Sp. æther. sulph. ℥ j,
 Extract. belladonnæ ʒ ij.

A piece of linen, moistened with this lotion, is to be applied to the breasts three or four times a day.

This remedy is often effectual, but it sometimes fails. The German writers employ belladonna and hyoscyamus internally. I have lately tried this plan, at the recommendation of Dr. Belluomini, who has been administering the homœopathic medicines to some of my patients at St. John's Dispensary. He favored me with a few doses of belladonna and hyoscyamus, but these had not the slightest effect in suppressing the milk. I may also add, that the homœopathic medicines were fairly tried in several cases at the dispensary, but without any benefit in a preponderating majority of instances. In some nervous and dyspeptic affections, they appeared to afford temporary relief.

The next part of the physical education or management of infants, which deserves consideration, is sleep and watching. Infants have great need of sleep during the first years of life. It is Nature's nurse, the soft restorer of strength, and of all fatigue caused by the con-

stant motion of this age. Aristotle first observed, that, of all animals, man slept the most immediately after birth. A new-born infant does nothing but eat and sleep. Sound sleep is as necessary to its well-being as aliment. It sleeps when it does not eat, and it awakes but to take food. Some authors have held that it must not be allowed to sleep too much ; but this is an error ; for natural instinct will awake it when necessary. It is still more absurd to force sleep by violent rocking, or by soothing syrups, both of which induce cerebral congestion, or determination of blood to the head, which predisposes to hydrocephalus, and to many other diseases. The exhibition of wine or spirit of any kind not only causes the same effects, but irritates the stomach and bowels, and excites gastro-intestinal inflammation. When the infant is reared properly, and is in health, it requires no remedy to induce sleep ; and it ought to be allowed to awake of itself. It is dangerous to awake an infant suddenly, as the disagreeable surprise, or the fright, might induce convulsions, and will inevitably injure the function of the brain, and, through it, that of every organ in the body. It is highly conducive to health, to accustom the infant to go to sleep and to rise at an early hour. Dr. Dewees advises to habituate it to noise, as the sense of hearing is not acute at birth ; and hence, if the apartment is kept quiet, it may sleep too much. It appears to me, that there is no objection to accustom it to the ordinary noise, which is inevitable in the nursery, but I cannot assent to the latter sentiment. I agree with this able professor in the opinion, that the nursery should not be kept too silent, because the infant might be suddenly awoke by the slightest noise. There is no objection to accustom it to moderate noise ; but any observant physician is aware of the great injury sustained by infants, when exposed to much or incessant noise. It ought to be placed in a dark, quiet situation, or it may be kept on the lap of the mother for a short time. Some authors advise the singing of soft monotonous airs to induce sleep, a practice first used by the Greeks and Pythagoreans, and since generally adopted. The monotonous humming of nursery tunes very readily induces sleep ; and this state is further encouraged by gently patting the infant on the back, or any part of the body.

As a general rule, an infant may be put to sleep about a quarter of an hour after having taken the breast, or, when older, after its repast. In proportion as it develops and observes external objects, it has less need of sleep, and the period of repose, during the day, may be abridged, by attracting the attention and directing it to various amusing objects. When it awakes of itself, it should be allowed to remain in bed for some time afterwards, so that it may not be frightened when left alone. It should be accustomed to be put to bed and to rise early, as it generally awakes as soon as day-light appears. It is better that the bed should be rather hard than soft, and moderately warm, so as to induce a tranquil and restorative sleep. When the infant is a few months old, it will derive more benefit from sleeping by itself, than with its parents. It should be kept sufficiently warm ; but, in cold weather, it often becomes so chilled, that it must be placed in bed with its mother, or nurse, in order to receive sufficient warmth. In such cases, the neck and chest of the parent, or nurse, will be uncovered, by the infant's being placed on her arm, and sliding down in the bed, and many women are attacked with cough and chest complaints from this cause. To obviate the danger of exposure to cold, the woman should wear a shawl, or warm bed-gown.

The position of the infant in bed deserves attention. It is usual to place it on either side, but the right is preferable, especially after feeding, because this posture expedites the passage of the food through the stomach. In case of vomiting, were the infant on its back, it might be suffocated. It is also necessary to change the position of the infant very frequently, as, like an adult, it will become fatigued and inconvenienced by remaining too long in any posture. It has been held by some, that the lateral position is to be preferred, as it favors the escape of the saliva from the mouth, and that this is secreted in excess during dentition. This opinion appears to me to be of little consequence, and indeed untenable. It often happens, that the infant will turn on its face when left too long in one position, or that it will approach the mother too closely, which will expose it to the danger of suffocation, or, what is popularly termed, being overlaid by the mother. This is likely to happen when the parent sleeps very soundly, or after she has been deprived of rest for several successive nights, and is at length overpowered by sleep.

When the infant is kept too warm it perspires profusely, it becomes extremely susceptible of cold in the head, which renders the nostrils almost impervious, causing sneezing and snuffles, interrupts the respiration, disorders the brain and motion of the heart, interrupts the sleep, and completely prevents the infant from sucking. To obviate these derangements, the infant ought to be kept moderately warm, and a few drops of almond oil should be introduced into each nostril.

Dr. Underwood is of opinion, that young infants are often suffered to sleep too much in the day time, and that they should be gradually broken of it; "and, indeed, if not indulged, they will not be so much disposed to sleep as is generally imagined, and will therefore take more rest in the night, which is mutually beneficial to the child and the mother, who, especially if she suckle, will be less disturbed, at a time when she particularly requires the refreshment of sleep." When infants are sleepless in the night, he advises to keep them awake during the day, by playing with them, dandling on the knee, or amusing them. This advice I think should be adopted with some caution, for, if the infant is in good health, it will not sleep too much, and its repose should not be interrupted. Besides dandling on the knee is a dangerous and unsafe mode of exercise for a new born or very young infant, and cannot in general be adopted before the second or third month, for the reasons I shall explain when describing exercise or motion. The same author is a strong advocate for the cradle, and contends that moderate rocking is not injurious: when the child is in health it does not require rocking in either a cot or cradle, and when it is feverish, its head and skin hot, such motion is highly injurious. An adult, affected with headache, cannot bear motion, neither can an infant. Rocking an infant to sleep produces bad effects on the brain; the infant sleeps because it is stupified, it is in a state of stupor bordering on apoplexy; the digestion becomes impaired, the rocking, or jolting, occasions vomiting, alters the milk in the stomach, and causes violent griping; yet some infants are so accustomed to it that they will not sleep without it. There is no inconvenience in leaving the infant to repose in its cradle or cot, the inaction of its senses will induce sleep, and, if rocked at all, it should be very gently. This custom has, however, been universally condemned since the time of Galen. The position of the cradle or cot, must be attended to; it should not be exposed to a vivid light, or placed laterally towards a window, as the infant would instinctively look to one side, and might acquire the disease called strabismus, or squinting. The same rule is to be observed with respect to the position of a candle or lamp in the nursery, but neither is necessary. Some contend that the infant should face the light; others that its head should be turned towards it; but all agree, that exposing it to a lateral light is improper. When it awakes from sleep, it is very improper to expose its eyes to a strong, or vivid light of any kind. It is a bad practice to cover the cot, or cradle, so as to exclude the air, which ought to have free circulation, because otherwise the breathing will become difficult and laborious, the child will gasp or sigh, its sleep will be disturbed, and finally it will be affected with fatal disease of the chest or brain. Children, of a year old, should not sleep in the same bed with their parents, when another can be procured, as they would be too warm, might be overlaid, or suffocated. Some writers hold it injurious to allow children to sleep with aged persons. They should not be spoken to at night, or carried about the chamber, as the mother, or nurse, will be exposed to cold, fatigue, and, finally, to various diseases. It is important to put the infant to bed at a certain hour, and it should not be awoke, or taken up, during the night, unless to remove its dress when soiled or wetted. It generally awakes once or twice to take the breast, but soon falls asleep, unless spoken to. When it is deprived of sleep, it is either by mismanagement in dress, or diet, or by illness. The cause whatever it may be, should be removed, and the effect will cease. It is highly improper to rock the cradle or cot with violence, or to exhibit narcotics, or soothing syrups, such as syrup of poppies, diacodium, sleeping drops, either alone or combined with wine, gin and water, or spirituous liquor of any kind, for the purpose of inducing sleep, as these will produce cerebral congestion, or determination of blood to the head, which may be followed by hydrocephalus, or water in the head, or by gastro-enteric irritation, which will induce vomiting, griping, convulsions, or fatal inflammation and ulceration of the bowels. It is most lamentable to observe the very com-

mon practice, among mothers and nurses, of violently rocking infants to sleep, and of exhibiting narcotics for the same purpose. This class of medicines is extremely dangerous and should never be prescribed but by medical practitioners.

When the nurse has occasion to suckle her infant, she need not sit up to perform that duty, because it is easily roused, and may not sleep again for some time. She can apply it to the breast, by lying on either side.

Though the infant requires clothing, food, and sleep, it also stands in need of motion, or exercise, without which it would soon cease to exist. Muscular motion is the chief means of accelerating the circulation of the blood throughout the body, on which the health of every part and the due performance of every function, chiefly depend. The motion of the limbs and of the body depends on muscular action; and even the infant in the womb moves and exerts its muscles. Immediately after birth it moves and contracts its limbs, it breathes, it discharges the contents of its bowels and bladder, all of which functions are performed by the action or motion of a great number of muscles. We observe, that the infant, as soon as it is washed and dressed, stretches its upper and lower extremities, and here again it throws many muscles into action; its circulation, respiration, digestion, &c. are effected by the same power. It is, therefore, an error to maintain, that the body of an infant, at birth, depends entirely on its mother or its nurse for muscular action, or exercise, a want so essential to its welfare. It is, however, true, that the parent or nurse can excite muscular action in the infant by a moderate and proper exercise, by communicating a degree of motion with her arms, as in dandling in the arms, or on the knees, or by gently rocking it in a cot or cradle, or by using gentle friction over its body and limbs. These modes of exercise are extremely requisite for a newborn infant; out they should be employed with proper caution.

As soon as the infant is dressed, the nurse places one of her hands under its head, and the other on its back or breach, and supports it in a horizontal position; or she places its head and trunk on her lap, or on one of her arms, or carries it on a pillow round the room, which enables it to move its limbs, and enjoy the advantage of a free circulating atmosphere. It is highly necessary that the nurse, when carrying the infant in her arms, should frequently change it from side to side, and not hold it more on one side than the other, because, by so doing, curvature of its spine, and other deformities would be induced. Her own feelings oblige her to vary the position of the infant very frequently; but some nurses prefer holding it on one arm more than on the other; and when young, they are soon seized with pains in the back arising from the strained position of the vertebra, which I have repeatedly known to terminate in lateral curvature of the spine. In such cases one of the nursery-maid's shoulders becomes elevated, or, to use a popular term, "grows out."

When the infant is placed in a sitting posture too soon, the weight of the head and body bends the spine outwards, or excurvates it, and forces the sacrum (the back bone at the lower extremity of the spine, and between the hip bones) inwards; and the same thing happens when the infant is held too long on the back. When placed too long with the face downwards, the pubic or front bones will be forced inwards; and if too long on either side, the hip-bone will be pushed in the same direction. These deviations of the bones may happen in scrofulous or rickety children, diminish the capacity of the pelvis so much, as to render parturition impossible without the aid of art, and often fatal both to mother and infant. The positions in which an infant is held are therefore much more important than superficial minds may imagine. It is manifest from the foregoing statements, that the posture of the infant, while in the arms of the nurse, should be frequently changed. It is a remarkable fact, that infants, unless when sleeping or taking food, are, from the earliest age, in motion, or making muscular action; so essential is exercise to their welfare.

The first kind of artificial exercise is carrying in the arms, for the infant requires to be almost in constant motion: this can be effected by dandling, patting on the back, body, or limbs, dandling by raising or depressing the arms, very slightly at first, and by rubbing the surface of the body and limbs night and morning. When the infant is about to be dressed, and after it is undressed, friction should be made over the whole surface of the body, a source of delight, as

we observe by its countenance and its stretching its limbs. This mode of exercise can also be made on the lower limbs whenever the mother has occasion to change the napkin worn by the infant. The hand alone, a piece of soft flannel, a brush, and a comb, are the means most proper to make friction, both general and local. Some persons use hair powder on the hand or brush, but this is seldom necessary. It is also advisable to place the infant on a pillow or couch, or in bed, and allow it to move its limbs in all directions. As it advances in age it grows stronger, and will experience great pleasure on being frequently dandled; but care must be taken not to elevate or toss it too high, as it has an instinctive fear of injury, and under this movement makes convulsive gasps, or may be thrown into convulsions. The infant is often thrown very high, sometimes out of reach, and an attempt is made to catch it while descending; but this is a most dangerous practice, and may dislocate the neck or injure the chest by too much compression, or rupture, or otherwise injure the liver, spleen, or any of the viscera of the abdomen, or induce fatal inflammation or hæmorrhage, examples of which are on record. It has also happened, that the nurse or parent could not grasp the infant in its descent: it fell on the floor and was killed on the spot.

When the modes of exercise now described have been frequently tried, the infant, after a longer or shorter period, acquires a considerable power of its limbs; and if physically educated, or reared according to the established doctrines of physiology, it will be in good health, and will make attempts to assume the pre-eminent attitude of our species—the erect position. A question is now proposed to medical practitioners—How soon should the infant be placed on its feet? The answer to this question is not always easily determined. The proper time cannot be fixed, as it must depend upon the development and strength of the infant. Every physician has observed, that one infant will stand at the age of six, nine, or ten months; while another cannot do so at the expiration of double that period. We observe, in general, that healthful infants, when placed on a couch, bed, or on the carpet, move their limbs in every direction, gradually turn on one side or on the face, and after having supported themselves for some time on their hands, elbows, knees, or breech, they exert their muscles, and acquire strength by such motions in the neck and loins, and finally are enabled to assume the erect or upright posture. Great care is necessary to prevent them from injuring themselves by such motions; and to avoid falls, contusions, blows, &c., the French contrive a kind of guard-cap, which projects beyond the nose, and prevents injuries of the head and face. An infant should be allowed to stand as soon as it shows an inclination; but its body must be supported by the mother or nurse, when it first attempts to assume the erect position. This is usually done while it is being dressed, and also after that process is finished. It is a bad and unnatural practice to place an infant prematurely on its feet, because the weight of the body will bend or deform them. It should stand when it has power and inclination to do so, but no sooner.

When it assumes the erect position, the mother should give it proper support, by placing one hand across the chest, and the other under the breech; or by placing the open hands on the sides of the chest, below its arms. It is highly necessary to change the support very frequently; and not to permit too much weight on any of the bones of the infant, as these are imperfectly ossified, they will yield to pressure, and become deformed. Unless the body is supported, the legs will bend and “grow out;” if too much pressure is made on the sides of the chest, the breast bone will project, and the child will become what is popularly termed chicken or pigeon breasted. Besides the methods of support already described, the hands may be placed under the arms of the infant for a short time, while it exerts its lower extremities.—These precautions are by no means so puerile as may be imagined; they are most essential to the proper exercise and growth of the infant.

Though the infant should not be placed prematurely on its feet, or assisted by leading strings, go-carts, and such like contrivances, it would, on the contrary, be extremely improper to prevent it from attempting the erect posture, when it has inclination and power to assume it. All contrivances for supporting the infant only tend to cause deformities of its limbs and spine; because the inferior extremities, not being sufficiently ossified, will bend under the

weight of the body, and the shoulders or chest must support the whole ; the neck will become sunk between the shoulders and awry, and the shoulders elevated. It is only necessary to place the infant on the floor, carpet, or bed, when, after the series of motions already described it will soon acquire sufficient muscular power to assume the erect position.

It has been urged by Dr. Hugh Smith, that the infant should be prematurely placed on its feet, because the lower animals assume this position immediately after birth. To this it is properly replied, that nature has fitted animals to accomplish this end, by making their bones solid. It should be always borne in mind, that the whole weight of the body of the infant, in the erect posture, rests upon its legs, whereas, in the animals, only one half of the weight is thus supported. Dr. Underwood has well observed, that if infants are left to their own spontaneous endeavors, no deformity will happen ; and that it is by urging them to stand and walk by means of our own awkward contrivances, that mischief is produced. I may here observe that it is highly improper to secure female infants in chairs, or to leave them sitting too long in bed ; as both practices induce rickets, and distortion of the spine, hip bones, and inferior limbs ; thereby predisposing them to fatal labors at a future period of life. Hence the frequency of rickets and deformities among the children of the poor. The infants of the middle and lower classes are committed to the care of other children, or giddy young girls, who let them fall and injure themselves ; or they are left sitting for several hours in bed, or fixed in chairs, causes which deform the back, enlarge the abdomen, distort the ankles, and bring on rickets. Such is generally the fate of children when sent out to nurse, as every experienced practitioner has repeatedly witnessed.

When children are rickety or delicate, they may be placed in a little chaise or go-cart, and take air and exercise in these contrivances.

From the preceding remarks it follows, that an infant will sooner or later raise itself into the erect position, and ultimately stand alone by taking hold of some external object. It should now be taught to move one leg before the other, and also to walk. It is much better that it should crawl before putting it on its feet, for all its muscles and organs will have obtained considerable strength. When it is taught to move its lower extremities, it must be supported by placing the hands under its arms, which is preferable to holding its dress or employing leading strings, both of which compress the chest and abdomen, and do mischief. All rolling machines, on which the infant's hands are placed for support, expose it to falls and injuries, and are now generally condemned. The infant stands alone about the eighth or ninth month, and after it has been taught to move one leg before the other, its attendant should present some object to its view, which will induce it to attempt to walk ; or she should hold it by the hands, or let it grasp her fingers, which is a much safer plan. Every care must be taken not to allow it to fall, or to have any object in its hand which might injure it. All infantile attempts at walking should only be continued for a few minutes each time ; because the infant very speedily becomes sad at its inability, or fatigued by its exertion. A very slight fall may induce such injury of the brain as will cause death, or fracture of any of the bones. Thousands of children lose their lives, in consequence of the injury inflicted by falls or contusions ; generally by congestion or water in the brain ; and when we say to parents, "this child has had a fall," they then recollect, when too late, that such an injury had been sustained. Several children from a year and a half to five years old are destroyed by slight external injuries ; and, therefore, we should impress this fact upon the minds of parents. Lastly, we should caution mothers and nurses against the practice of allowing infants to crawl on their abdomen, chest, or neck, as serious injuries may be done to the parent and offspring. Such pressure over the stomach, which is generally delicate, and over the breasts, which are extremely sensitive, is prejudicial to the nurse.

Children are extremely active while awake, and are instinctively fond of motion or exercise ; but care must be taken, when they are very young, not to allow them to walk too much. They soon become fatigued, and require rest. In general, a child of three or four years of age, who is permitted to play about, takes a vast deal of exercise during the day, and falls asleep at seven or eight o'clock in the evening. It is therefore necessary to put it to bed, and, as it will sleep soundly, it usually awakes at daylight or soon afterwards, and will wish to rise.

THE
REGISTER AND LIBRARY
OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
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ASSISTED BY JAMES HAGAN, M.D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, SEPTEMBER 17, 1834.

No. 41.

UNIVERSITY OF PENNSYLVANIA.

We perceive, by the annual advertisement of this Institution, that the Professorship of Midwifery has become vacant. Our readers are probably aware, that Dr. James has for some years been unable, on account of the state of his health, to discharge the duties of the chair, and that Dr. Dewees, as the adjunct professor, delivered the lectures. Many reports are current in the medical circles of Philadelphia, as to the gentleman who will probably be appointed to this important professorship. These are of so contradictory a character that no confidence can be placed in them. Should the present state of Dr. Dewees' health afford any prospect of his being able to perform even a part of the duties of the office, there can, we conceive, be little doubt of his being appointed; but from the nature of the late indisposition of this distinguished teacher, and from the severity of the attack, there appears to be little chance of his being qualified to do so. From Dr. Dewees' absence from the city, the present state of his health being differently reported, every thing is left in doubt. The decision of the trustees of the university, must, however, in a very short time remove all uncertainty, and we shall take the earliest opportunity of announcing the result of the election to the members of the profession.

By the same advertisement we observe, that Dr. Physick has ceased to be a member of the Medical Faculty of the University of Pennsylvania, his name no longer appearing in the advertisement. As this eminent surgeon had, *de facto*, for some years past retired from his professorship, this is as it ought to be. Publishing his name as Emeritus Professor, when he no longer performed any of the duties of the chair, was apt to mislead students, and induce them to believe that he would deliver, at least, some of the lectures. The highly distinguished gentlemen who constitute the Board of Trustees, in advertising his name, did so, we are persuaded, solely with the view of paying a compliment to a gentleman who had done so much to elevate the reputation of the school. As their object might, however, be misrepresented, it was but just and proper that his name should no longer be permitted to appear amongst the list of the professors.

As many of our subscribers are alumni of the University of Pennsylvania, and as we are desirous in our editorial character to divest ourselves of all bias in favor of one school in preference to another, we have copied the advertisement of the University from the National Gazette, and have published it on the cover along with the advertisement of Jefferson Medical College.

ENLARGEMENT AND IRRITABILITY OF THE MAMMA.

— Jones, a healthy, good looking young woman, aged 19, was admitted into the Westminster hospital, having her right breast exceedingly enlarged, and endowed with a most exquisite sensibility. The least pressure on the part was attended with the most acute pain, rendering her existence very miserable.

Soon after her admission she was put on the extract of belladonna, in the quantity of one-fourth of a grain three times a day. The tinctura lyttæ and oleum terebinthini were also administered. An ointment, composed of acetate of morphine and adeps was used as a topical application.

Under this treatment the patient has experienced very beneficial effects, the enlargement of the breast having been considerably diminished, and the morbid sensibility, which it formerly possessed, being removed.

PARLIAMENTARY COMMITTEE ON MEDICAL EDUCATION.

During the last few days deputies from the Scotch and Irish medical corporations have been examined by the parliamentary committee, and the worthy chairman elicited a vast deal of information, highly beneficial to the great cause of medical reform. There can be little doubt but the laws relating to the medical profession will be entirely changed during the next session of Parliament. It is rumored that there will be three new acts for England, Ireland, and Scotland, or one including the whole of the United Kingdom.

USE OF MERCURY IN SYPHILIS COMBINED WITH SCROFULA.

There is a man at present in Winchester Ward, under the care of Mr. Brodie for secondary symptoms of syphilis, with eruption of rupiæ on the skin, &c.; combined with this also he had enlarged scrofulous glands in the neck; yet, notwithstanding this, he has derived much benefit from taking the oxymuriate of mercury, and calomel, and opium. The swelling of the glands has abated, and his general aspect much improved. With reference to this case Mr. Brodie remarked, that it was commonly said that mercury was a bad thing to give in scrofulous cases. The fact was, that in this case the mercury had done the man a great deal of good,—the scrofula had lain dormant in the system, and the mercury had acted as a stimulant, and thrown the disease out. The man is evidently much better. On his first admission here he took the oxymuriate of mercury, which was afterwards changed for the calomel and opium; and you see how much he has improved under it.

LECTURE ON THE THEORY AND PRACTICE OF MEDICINE.—BY WM. STOKES, M.D.

Delivered at the Medical School, Park street, Dublin.—Session 1833-34.

Diseases of the Small Intestines.

GENTLEMEN,—At my last lecture I was engaged in the consideration of disease of the small intestine: let us now resume the subject. You remember I mentioned to you that most of our knowledge of the inflammatory affections of the small intestine refers to the ileum, and that, in point of fact, we know little or nothing of disease of the jejunum. This, however, is not of much importance, as, of all the parts of the digestive tube, the jejunum is the least liable to disease, and is seldom or never engaged without the co-existence of disease in the ileum or duodenum. You recollect I drew your attention strongly to the extreme frequency of inflammation in the lower third of the ileum, and the importance which it derives from this as well as from its insidious latency. I showed that it was one of the most common secondary lesions in typhus fever, and a frequent cause of death. This cannot be impressed too much upon your minds,—it is a point of pathology on which the best informed medical men are

agreed. It may also, and very often does, occur as a pure idiopathic affection, without being preceded or superinduced by that morbid state of the whole economy to which we give the name of fever. I said it was extremely common in children; that here it was in many instances mistaken for worms; that it constantly occurred during the progress of *tabes mesenterica*, and often appeared to have the initiative. I alluded to the discussion which has arisen to the question whether disease begins in the glands or mucous membrane, and stated that such discussions are useless, as it is impossible to separate the two affections in diagnosis or treatment, and practical medicine gains nothing by the distinction.

With respect to the symptoms of ileitis, I observed that they were those of a general affection of the digestive tube, the phenomena which indicate irritation at its upper and lower part being absent. That if you abstract from symptoms of a general affection of the intestinal canal, the vomiting and desire for cold drinks which characterize inflammation of the upper part, and the diarrhœa and tenesmus which denote disease of the lower part, you will have the diagnostic marks of an ileitis. At our last meeting I showed you some preparations illustrative of this disease; I intended to have exhibited others of the same kind today, but regret I cannot lay my hands on them at present. Allow me to rehearse the symptoms of ileitis once more. Thirst, without desire for cold drinks; absence of vomiting, and of the characteristic symptoms of inflammation of the colon and rectum; early tympanitis, generally on the second day of the disease; absence of pain, but existence of tenderness on pressure between the umbilicus and the crest of the ileum; pointed tongue, of a dirty white on the upper surface, and red at the sides and tip; contracted features; quick, small pulse; fever, and, what I forgot to mention in my last lecture, scanty high-colored urine, a very constant symptom, so much so, that I have known this disease mistaken for an affection of the kidney, and the patient treated accordingly. I must add, that the patient died, and that the kidney was found perfectly healthy, the ileum in a state of violent inflammation, and the suppression of urine to be referred to this cause alone.

I drew your attention at my last lecture to the increased pulsation of the abdominal aorta and its immediate branches, and stated that I looked upon this as a direct sign of abdominal inflammation. I do not mean to say that every case of increased action of the great abdominal arteries is significant of ileitis or intestinal inflammation. We see unusual pulsation of the abdominal aorta in hysterical females, and see it subside under the use of antispasmodics we see it in painter's colic; we see it in cases of extreme emaciation; we see it in disease of the aorta, or of some of its first large branches. What I wish to draw your attention to is this: where we have this symptom in addition to other signs of inflammation of the digestive tube, it is of considerable value as a diagnostic.

You may remember I stated that ileitis, from being generally attended by fever of the continued type, has been frequently supposed to be simple continued fever, and that this was one of the consequences which resulted from the latency of the disease. Petit was the first who described this disease rightly. He described it under the name of entero-mesenteric fever, that is to say, fever depending on disease of the mesenteric glands and small intestine. The following is an outline of his description: "The attack comes on with debility, irregular fever, quick, small pulse, sunken countenance, perhaps some diarrhœa, a lustrous expression of the eye." I may remark here that the occurrence of diarrhœa without any evident affection of the great intestine, and *accompanied by fever*, is almost always a sign of ileitis. It too often happens that practitioners, as I before remarked, prescribe for names. In cases of pulmonary disease, if the patient has fever with copious expectoration, they say he is laboring under an attack of bronchitis; but in case of intestinal inflammation, accompanied by increased secretion, it is different; they merely say he has diarrhœa, and prescribe for it without connecting it with its proper cause. The general rule is, *that when you have diarrhœa with fever, there is inflammation of the digestive tube.*

In the inflammation of the ileum the patient generally lies on his back, and avoids motion as much as he possibly can, his skin is dry and harsh; he is feverish; he has thirst, but little desire for cold drinks; he scarcely ever vomits; his alvine dejections are sometimes thin and

purgative, sometimes figured and natural. But there is one circumstance which is of considerable importance in pointing out the amount of disease, even in cases where patients have considerable diarrhœa, and this is, that the diarrhœa is not sufficient to account for the extraordinary prostration. There must be some cause for the great reduction of vital power besides the mere diarrhœa, and I must state to you that there are few diseases which bring on such rapid prostration as inflammation of this portion of the digestive tube. In the advanced stage of this disease, the patients have cold skin, subsultus tendinum, petechiæ, involuntary discharge of urine and feces, low delirium, coma, gangrenous ulcerations of the back, sinking of the powers of life, effusions into the head and chest, in fact all the symptoms which characterize the last stage of typhus. Generally speaking, the disease is more or less prolonged, and the patients die of exhaustion, but in some cases the approach of death is more sudden and formidable. Some of the ulcers pass deeply into the substance of the intestine, perforate all its coats in succession, the contents of the intestine escape into the peritoneum, and the patient is carried off by a rapid peritonitis.

Inflammation of the ileum is very frequently met with in children, and it is most important that you should be aware of the extreme frequency, as well the symptoms of this disease, in those little creatures. There is one fact in pathology, which seems not to be generally acted on, that there is a class of diseases which are intra-uterine, and with which a child may be born. There are a great many cases of this kind on record, but still, I must confess, there is a great scope for investigation, and that our knowledge on this subject is imperfect. I believe that any one who has the opportunity of dissecting a great number of still-born children, or of those who die immediately after birth, would, by examining the state of the different cavities, and publishing the results of his examinations, earn for himself very great reputation. It is a well known fact that children may be born with hydrocephalus, with tubercles in the lungs, with acute inflammation of the stomach; nay more, children have been known to be born with chronic gastritis, and with old ulcerations in the ileum and colon. When children happen to be born with gastro-enteric disease, they are puny and weak; the fact of this occurrence is generally overlooked, the case is considered to be one of general debility, and hence most of those children are lost in consequence of their medical attendants being ignorant of the real nature of the disease. It is a very curious fact, too, that where enteric disease occurs in very young children, it is frequently met with without any accompanying fever, and this is a point of great importance. Here is a fact not generally known. A new-born infant has vomiting, swelled belly, contracted features, but at the same time he has cold skin and feeble pulse; he has no distinct symptoms of fever, and a puny and feeble state of constitution appears to be the prominent symptom. He dies, and, on opening the body, you find distinct traces of enteric inflammation. The younger the child is, the less will be the chance of fever occurring as a sign of enteric inflammation. It seldom happens that this takes place after dentition, but before it is very common.

Now, what are the circumstances which would enable us to recognize this disease in children who have passed the period of first dentition? If you find the child vomiting, thirsty, with swelled belly, hot skin, a tendency to diarrhœa, and an erythematous redness about the anus, you may be sure that there is disease of the digestive system; if the child is restless, and you perceive that the symptoms of irritation of the head are coming on, you will be more certain, and in such cases pathology will inform you that the disease is chiefly in the ileum. In the advanced stage the diarrhœa is lessened, but the belly continues tympanitic, the child exhibits traces of long suffering, and the circumstance of the teeth not being developed gives it the appearance of premature old age, which cannot be mistaken by an experienced eye, and is a sign of long continued and extensive intestinal disease. In some cases, the child gets a common attack of diarrhœa: this is neglected, but after going on for two or three days, symptoms of fever begin to appear. Here we arrive at a practical rule. Where a child has diarrhœa, and after laboring under this for a few days, gets an attack of fever, you may be almost sure that it is a case of enteritis, and that you will be acting wisely in treating it as such. In the opinion of many well informed practitioners, that form of fever, which has been called infan-

tile remittent, is only an example of this disease. In proof of this fact, Dr. Marsh, my friend and predecessor in this school, in his paper on jaundice makes some excellent remarks on this subject. "There is yet one form of disease of very frequent occurrence, the seat of which is in the stomach and small intestines. That to which I allude, is the *infantile remittent fever*, or, as it is vulgarly termed, the *worm fever* of children. Its characteristic symptoms, if closely analysed, will be found all of them to point to the mucous surface as the original seat of morbid action."—*Dublin Hospital Reports*, vol. iii.

It would be well for medicine, if the valuable information conveyed in Dr. Marsh's paper was more universally diffused. I feel convinced that many children fall victims to mal-practice under circumstances of this kind. A child gets symptoms of diarrhœa, has irregular or bad appetite, and swelled belly, the disease is called worm fever; he gets a dose of calomel and jalap, and perhaps passes some worms; for when we come to speak of worms, we shall find that disease of the mucous surface is intimately connected with worms, and, in the opinion of one practitioner, worms may be the result of enteric inflammation. Well, some worms are passed; the purgative is again used; the child may not pass any more, or he may pass one or two in the week to encourage the practice. But all the symptoms of intestinal inflammation, the diarrhœa, tympanitis, the thirst, the fever, are supposed to depend upon the presence of more worms, and these are to be evacuated by purgative medicine, and thus the affair goes on, until the child falls into tabes mesenterica, or gets sympathetic inflammation of the brain, and dies of hydrocephalus. I regret to add, that in many cases of this kind the head alone is opened; a little fluid is discovered in the ventricles of the brain, the doctor's diagnosis of the head is found to be correct, and all parties are satisfied. In cases of this kind, the early application of leeches to the belly, the regulation of diet, keeping the bowels gently open by enemata and mild counter irritation, would have saved the patient. This is not mere theory, it is but a statement of facts, supported by the experience of practical men.

I wish to say a few words here with respect to tabes mesenterica. In a course of lectures like the present, it would be impossible to examine in detail the different forms of this disease; it will be as much as I can do to draw your attention to the general principles of its pathology and treatment. The term, tabes mesenterica, is employed to designate that species of consumption which depends upon disease of the mesenteric glands. The common idea formerly entertained with respect to this affection, and, I believe, still to a great extent, is, that the disease first commenced in the mucous glands, and from these extended to the lymphatic ganglia of the mesentery, which in their turn became enlarged, thickened, and less pervious, so that a sufficient share of nutriment cannot be absorbed, the consequence of which is, that the patient dies of atrophy and exhaustion. With such views of the case, the principles of treatment consisted in employing a class of medicines called deobstruent, the operation of which was supposed to be efficacious in removing this obstruction, this deposition in the substance of the mesenteric glands, and the enlargement by which it was accompanied. This was, and this I am sorry to say, is the idea still entertained by many. What is the actual state of the science with respect to this disease? It is found that the glands are certainly changed in their structure, and that they are manifestly enlarged; but this is only a link in the chain of phenomena, for it has been proved, that in the majority of cases the disease is ushered in by enteritis, and that the swelling of the glands is the result of disease, propagated along the course of the lymphatics from the mucous surface of the intestines to the mesenteric ganglia. This preparation, which I shall send round, will give you an idea of the actual state of the disease. Here is one of the glands which has been cut through; it exhibits the cheesy texture commonly observed in this disease, but you can perceive there are a number of lines running towards each of the glands; these are the engorged lymphatics, which you see correspond with ulcers on the mucous surface of the small intestine. That this is the true pathology of the disease will appear from the following circumstances: First, it has been proved, that the glands of the mesentery commonly become inflamed, enlarge, and even suppurate, in cases of inflammation of the mucous membrane of the intestinal canal in the adult. A patient gets enteric inflammation and dies; on dissection we find distinct marks of disease in the intestines, and in addition to this, we find the

glands evidently diseased. Here is one fact. In the next place, it has been proved that, in a great many cases of *tabes mesenterica*, if you retrace the history of the disease, if you go back to its first and earliest phenomena, you will find that it began with the symptoms of what has been termed remittent fever, or that the patient had enteritis or diarrhœa, which afterwards became chronic, and that then the symptoms of *tabes mesenterica* began to appear. In the third place, you will find that, in a vast number of cases, where a fatal termination has occurred, if you pursue your dissection, and slit up the whole of the ileum, you will discover numerous old ulcerations of the mucous membrane, and find that the lymphatics, which correspond with these ulcerations, are in a state of manifest disease. Lastly, it has been observed, that the best treatment for *tabes mesenterica*, is that which is calculated to remove enteric inflammation, and that the old treatment, founded on the principle of removing obstruction, by the use of alkalies, absorbents, and solvents, is erroneous and false in the majority of cases. So that we have proof of the origin of this disease in intestinal inflammation, drawn from the occurrence of analogous affections in the adult, from the phenomena of the disease in its early stage, from morbid anatomy, and from treatment. I think there can be no doubt that, in most instances, it commences by intestinal inflammation. Of course a predisposition to disease of the glandular system will favor the occurrence. But is there no case in which the disease has commenced in the glands, and where the mucous membrane of the digestive tube is secondarily engaged? My answer to the question is, in a few cases we cannot prove that the disease commenced in the mucous membrane, and there is no reason why the glands of the *mesenterica* should not be liable to primary tuberculous or scrofulous deposition as well as those of any other part of the body; but, in a vast number of instances, the enlargement of the mesenteric glands is secondary, and resembles the inflammation of the inguinal glands, which results from chancre on the penis. I would advise you to consult the *Commentaries on Pathological Propositions* by Broussais. On this subject also, Dr. Mackintosh's *Practice of Physic*.

There is one thing more connected with this disease, which is of considerable importance, and to which I shall briefly draw your attention, and this is, that this inflammation of the glands of Peyer and Brunner, this *dothin-enteritis*, as it has been called, is a very common cause of slow convalescence in fever. You will meet with cases of fever, which will go on to the 17th or 21st day, and then something like a crisis takes place; you expect that from this time forward the patient will get progressively better; but in the course of a few days, you will be surprised to find no amendment, and that he is not gaining strength; you feel his pulse, and find it quick and small, his attendant informs you that he is restless at night, and when you ask him how he feels, he says he has no particular complaint, but that he is very weak, gets no sleep at night, and has no appetite. Under these circumstances you are anxious to find out what his disease is; you inquire into the state of the heart, lungs, and brain; you find no evidence of disease in any of these organs; you run over in your mind the symptoms present, the feverishness, quick pulse, want of appetite, restlessness, and finding some degree of abdominal tenderness and tympanitic swelling, you arrive at the conclusion, that the return of health and strength is impeded and delayed by the existence of a *dothin-enteritis*. The first person who discovered this fact was Dr. Cheyne. "In these cases," says he, "the distress of the patient often bore no proportion to the danger he was in; the former was very little, while the latter was extreme. The disease would proceed without violent symptoms; nay, a patient would seem to be recovering, although without any critical discharge; he would call for full or middle diet, and for days take his food regularly. The only circumstance in his situation which demanded attention was, that he regained neither flesh nor strength, and he expressed no desire to leave his bed. Then, his pulse again became quick and his tongue dry; and he would complain of dull pain and uneasiness in his belly, attended with soreness on pressure, and a degree of fullness in the upper part of the abdomen. Then came on a loose state of the bowels, and great weakness. Probably at the next visit the patient was lying on his back, with a pale sunken countenance, and a quick pulse; his mind without energy. Then his stools (mucous) passed from him in bed, and the urine, also. Perhaps a hiccup came on; next his breath

ing became frequent, in which case death was at no great distance." In all these cases the mucous membrane and glands were found in a state of decided disease.

Now, what was the nature of this disease? It came on as a secondary affection during the course of fever, became more marked and intense, and finally destroyed the patient. I have seen very many cases of this disease. I give you this as a general rule:—when, after the apparent termination of a fever, your patient convalesces very slowly and imperfectly; when you find that he is becoming weak, that his pulse is quick, his belly tympanitic, his thirst still present, *and all this without evidence of disease in the respiratory, circulating, or nervous system*, you may suspect inflammation of the mucous glands of the digestive tube, which may terminate in deep ulcerations; and you will not be surprised if your patient should be carried off by rapid peritonitis, occasioned by an ulceration of all the coats of the intestine. I have witnessed many instances of the truth of this statement.

It has been objected to the doctrine, that infantile remittent fever, and *tabes mesenterica* depend on inflammation of the mucous membrane of the digestive tube, because it has been found that purgatives are sometimes useful in the treatment of the disease; and those who bring forward this objection ask, "if purgatives give relief, how can it be intestinal inflammation?" Now, what are the real facts of the case? These cases, which have been relieved by purgatives, are cases in which purgative medicine has been given in the early stage, and has been productive of benefit; or, in other words, where the disease is only just commencing, and where its cause is proved to be the presence of irritating matter in the bowels. A physician is called to a case of this kind; he gives a purgative; a quantity of offending matter is evacuated, and the child gets better. You should act in the very same way, and have recourse to purgatives whenever you have reason to suspect the existence of irritating or indigestible matter in the bowels. You are to employ purgatives on the same principle as every one employs emetics, in cases where corrosive poison has been swallowed; but no one is inclined to think that he will be able to cure the disease by the continued use of emetics. But, unfortunately, persons do not attend to the actual state of the digestive tube; they go on prescribing purgative after purgative, until the irritation, which was originally produced only by indigestible matter, becomes exacerbated, and terminates in ulceration of the intestinal mucous surface, accompanied by all the symptoms of *tabes mesenterica*.

The treatment of this affection is both simple and easy, particularly when the patient applies to you at an early period. In the case of children, one of the first things you have to determine is, whether you shall have recourse to the employment of purgatives or not. If you happen to be called in at an early period, or if the patient has taken no purgatives, and there is reason to suspect a loaded state of the bowels, you will be right in employing some mild laxative. You cannot commence your treatment better than by prescribing some mild opening medicine, particularly when you discover that the patient has been taking indigestible, improper food. This plan I think both reasonable and useful. You will frequently meet with cases in which all the bad symptoms will disappear after the use of a few laxatives. Here is a point on which the followers of Broussais erred. They declared that the exhibition of a single laxative would be to endanger the patient's life; and that the only treatment which could be relied upon, consisted in the use of leeches, low diet, and cold water. But I think there is as much reason in giving a laxative to remove indigestible matter from the bowels, in a case of this kind, as there would be in giving an emetic in a case of gastritis produced by the presence of indigestible matter or corrosive poison in the stomach. But if, after having evacuated the bowels, the symptoms of intestinal irritation should continue, you are not to persist in the use of purgatives; change your hand and attack the symptoms of intestinal inflammation, which have now decidedly commenced.

We shall occupy ourselves, gentlemen, at the next lecture, in considering the treatment of this disease in the adult as well as children, and then go on to the disease of the large intestines.

COMPRESSION OF THE BRAIN WITHOUT BAD CONSEQUENCES—CURE.

A very extraordinary case presented itself some time ago, in Westminster Hospital, in the

person of a lad about twelve years of age, who met with a fall so violent as to cause an indentation in the cranium, about the junction of the frontal with the right parietal bone. The peculiarity of the case consists in the complete absence of any of the symptoms of compression of the brain. The boy suffered no ill effects whatever from the accident, nor were the constitutional functions in the least damaged. During his stay in the hospital, his head was shaved, and he was put on low diet. He was in a few days discharged, apparently in the most perfect health.

HÆMATOCELE CAUSED BY THE KICK OF A HORSE.

W. Williams, æt. 37, admitted (Middlesex Hospital) January 18th, under Mr. Mayo. He had been kicked by a horse the day before in the groin and scrotum of the left side; the scrotum was immensely swollen and discolored; there was no pain in the part, but a great deal across the loins, with nausea; he passed the urine freely and without pain. Spirit lotion applied to the part.

19th. Pain in the back less, and confined to the left side; considerable pain in the scrotum, the distension and discoloration being very great; it was evident that a quantity of blood was contained in the cellular membrane of the scrotum, but the state of the testes could not be determined. Two incisions were made to relieve the distension, one at the upper part, the other at the lower and left side of the scrotum; fomentations applied, and the scrotum supported; some blood gradually flowed from the lower incision, and the tension and pain were diminished.

20th. Much easier this morning; no pain in the loins, nor in the scrotum, unless pressed.

℞. Magnes. sulph. ℥j. Liq. antim. tart. ℥xl. Aq. menthæ pip. ℥iss. Fiat haust. ter die sumendus.

25th. The pain and tension have been diminishing daily. It is now clear, that one part of the swelling arises from blood contained within the tunica vaginalis, the other and lower part, from blood effused into the cellular membrane of the scrotum.

Tunica vaginalis punctured, and eight ounces of blood, fluid and congealed, oozed out; this was followed by great relief.—Continue medicine.

February 1st. The tumor was again punctured, and ℥viij. more blood came away; this was followed by smart inflammation of the testis and cord, which was relieved by purging and the application of leeches to the groin.

In a few days' time he was so much better that he left the hospital, the scrotum remaining swollen, but without much pain. He was directed to wear a suspensory bandage, to foment the part night and morning, and to return in case the pain increased.

CONTRIBUTIONS ON MIDWIFERY; BY THOMAS RADFORD, Surgeon Extraordinary to the Manchester Lying-in Hospital, &c. &c.

On the Injury which the Head of the Child sometimes sustains in its passage through the Pelvis.

The injuries which the head of the child sustains during its passage through the pelvis in protracted labors are very numerous. But that which is more particularly considered in the following remarks, is what is technically called the "mould shot head."

When the head enters a narrow pelvis, and its occipito-frontal diameter corresponds with the oblique or the transverse of this cavity, and it is propelled through it by the unaided natural powers, an alteration in its figure is produced. The occipito-frontal diameter is considerably increased, whilst the conjugate is in an equal degree diminished. The same change in shape is observed in the head when it is long detained at the outlet of the pelvis, in consequence of rigidity of the soft parts. The brain bears this alteration in the figure of the cranium with comparative little inconvenience, because the pressure it sustains is parallel with the fibres of some of those parts which lie between the two hemispheres, and with the falx, which, in its natural state, supports this organ. The pressure is also less injurious, because it is applied upon the sides of the vessels, but not in such a degree as considerably to influence their calibres.

The figure of the "mould shot head" is very different from the one just described. It is

very considerably increased from the base to the crown, and diminished in its occipito-frontal diameter. It does not take place in all cases of protracted labor, but only in such as are produced by a malposition of the fœtal head. It sometimes occurs when pressure is artificially applied in the same direction.

When the head presents with its long diameter lying parallel with the short one of the superior aperture of the pelvis, the occiput may be situated towards the pubes, or towards the sacrum. In both cases the labor is slow and difficult, even if the pelvis is well formed; but if, along with an unfavorable position, the pelvis be narrow, or if the head is larger than ordinary, the difficulties are considerably increased. In this presentation, the alteration which takes place in the head is as follows:—A considerable diminution in the length of the occipito-frontal diameter is produced, in consequence of approximation between the frontal and occipital bones, the fontanelles become nearly obliterated, the parietal bones are forcibly separated, and the sagittal suture is wider and more prominent. The brain is pushed into this space, which is insufficient for its accommodation, its organization is injured, and the child, when born, is either dead, or dies soon after birth.

Injuries of a similar character are sometimes met with, when the long forceps have been used. This mischief will inevitably occur if the obstetrician has no regard to the kind of instrument he uses, or to the degree of pressure he applies. If the head is forcibly and rapidly dragged through the pelvis, regardless of the axis, instead of waiting for that moulding of the bones which nature adopts when left to herself, effects of the most serious nature are produced upon both the mother and child. In all instrumental labors, when the head presents naturally, the pains, however trifling, if attended to, have a tendency to effect those salutary changes in the cranial bones whereby the delivery is accomplished more successfully. But if the instruments are brought into their full action, the tendency of these feeble efforts will be completely overcome.

Children, whose heads have suffered pressure in the direction of the occipito-frontal diameter, are frequently born dead, or they die soon after birth, unless the case is properly considered. They are unable to effectually commence the important function of respiration. The lungs are only partially filled with air by the convulsive sobs which take place. The action of the heart is not free; and if the pulsations in the funis continue, they are labored and oppressed. The countenance is turgid, and of a livid color, and the vessels of the conjunctiva are quite injected with blood. These symptoms fully prove, that the difficulty to commence respiration does not depend upon a mechanical obstruction from mucus in the trachea; but on the injury which the brain has suffered. This organ is in a state of apoplexy, sometimes depending on a very highly congested state of the blood vessels alone, sometimes on an effusion of blood, which takes place in different parts of the brain, and also varies in quantity. This opinion is corroborated by dissection, and the appearance discovered will be best understood by detailing a case or two.

CASE 1.—I opened the head of a child which was born with the symptoms already mentioned, and lived twenty minutes. A considerable quantity of extravasated blood was found upon each hemisphere, between the pia mater and the tunica arachnoidea, and at the base of the brain upon the dura mater. The superficial vessels were universally gorged with blood. Those of the plexus choroides were very turgid.

CASE 2.—Upon opening a child born dead, after a protracted labor, in which the long forceps* had been applied, on account of distortion at the brim of the pelvis, I found a considerable quantity of coagulated blood upon the left hemisphere of the brain, and also upon and under the cerebellum. The structure of the brain was much softer than natural. The vessels upon the surface were very full. Upon opening the ventricles, a clot of a flattened shape was seen in the left. These serious effects are produced by the brain being compressed in a direction contrary to the course of the fibres of some of those parts which lie between the hemispheres, and also to the current of blood along the longitudinal sinus.

The pressure, applied to the fore and hind part of the head, has a tendency to change the

* The forceps used in this case, as well as in the one related before, were Dr. Hayton's.

relative situation of many parts of the brain. It forces one hemisphere from the other, which, if carried beyond a certain degree, will inevitably produce laceration of the coats of the veins, which pass to the longitudinal sinus; and this danger is increased by the great congestion which exists.

The practice to be adopted, is to bleed freely as soon as possible after the child is born. The funis ought to be divided before it has ceased to pulsate, as no blood can be obtained if this be neglected. If the pulsations in the vessels of the funis have ceased, two leeches must be applied to the temples.

If these means have not been adopted, convulsions generally ensue, as happened in the two following cases, the first of which I am indebted for the particulars to my esteemed friend and partner, Mr. Hunt, and I shall cite it in his own words.

CASE 3.—“In a case of difficult labor, which I attended last December, in conjunction with Mr. Greaves, one of the surgeons of the Lying-in Hospital, and which happened to a female suffering so much from contraction of the brim of the pelvis, as to induce the surgeon, who had attended at her preceding labor, to have recourse to embryotomy; the long forceps, with blades of equal length, were successfully employed, although very considerable difficulty was experienced in applying them. The child's head was not only very much lengthened, but also distorted at the right parietal region, in consequence of the pressure occasioned by the combined action of the contracted pelvic bones and the blades of the forceps. The face was tumified and dark colored, and respiration oppressed. It was thought desirable to allow some blood to flow from the funis; but as this was not divided until its pulsation had ceased, although no ligature was applied, no bleeding of the fœtal portion followed. Next day the child continued to suffer from the state of the head, and had two convulsions; a leech was applied to each temple, gentle aperients ordered, and the child gradually recovered.”

CASE. 4.—I was requested by Mr. Dick to visit a poor woman in New Blakely-street, who was suffering from protracted labor, caused by contraction of the brim of the pelvis. The long forceps were applied, and the child delivered alive. A depression of considerable size was produced on the left parietal bone, from the pressure it had sustained from the promontory of the sacrum. The signs which the child manifested were those of apoplexy. The funis was divided, but no blood followed, as the pulsation had previously ceased. The child continued in the same state during the day, and in the evening was attacked with convulsions, which were frequent. Two leeches were applied to the temples, the bowels were opened, and the child recovered.

TRANSLATION OF M. ALIBERT ON THE DISEASES OF THE SKIN.

By Samuel Plumbe, M.R.C.S.—Late Senior Surgeon to the Royal Infirmary for Children, &c.

We resume the translation of M. Alibert after a lapse, which has created an impatience on the part of many of our readers, but with the hope that we shall now be able better to effect our object, inasmuch as we have now on our table the latest complete edition of the letter-press, and the whole of the engravings, which have been completed, before us. M. A. having expressed a very reasonable dissatisfaction on some points, regarding the translations before published, we shall now give him, as well as our readers, the pleasure of reading a very correct (at least as far as our humble abilities go) translation of his “grand work.”

M. Alibert is yet an enthusiastic student, as regards diseases of the skin, and it is evident, from the spirit pervading every line of his writings, that though half a century has passed over his head, since his attention was first directed to the subject, he has lost none of the ardor of youth in following it up. It is evident, also, from his writings, that he is a good and amiable man, and that the interest of his fellow-creatures is his greatest study. He plainly perceives, that best to serve that interest in his character as a physician he should direct his exertions towards the improvement of medical science, and particularly that branch of it which circumstances have given him opportunities of observation of, not to be obtained by more than a few. His juniors may be content to follow in his steps, and be well satisfied by picking up from time

to time a grain from the chaff he, in his long life of practical experience, habitually sifted, and which escaped his observation ; but they hardly find these grains, sow them as they will, productive of any thing deteriorating Mr. A's high character as the first of French dermatologists.

Still, with the obligation before us of rendering M. Alibert to our readers as near as possible, according to his own meaning, we are compelled to look seriously at the space necessary to do justice to ourselves and to him at the same time, and we must therefore say, as indeed we did at the commencement of the undertaking, that we will look *first* to our contract to our readers to give all which is new and established, as valuable, in the writings of our author, and that the description of the disease, the pathology, etiology, and method of treatment shall follow with the utmost regularity.

M. Alibert has invented a new form of illustration of the classes of cutaneous diseases. He has constructed an "Arbre des Dermatoses,"—a tree, the branches of which are twelve in number. We need not say more to excuse us from copying it, and handing it in our pages to our readers, that the

First branch has	.	.	47 sprouts,
Second branch	.	.	28 sprouts
Third branch	.	.	14 sprouts,
Fourth branch	.	.	21 sprouts,
Fifth branch	.	.	10 sprouts,
Sixth branch	.	.	14 sprouts,

134 varieties of disease on one side.

On the other

First branch has	.	.	29 sprouts,
Second branch	.	.	7 sprouts,
Third branch	.	.	7 sprouts,
Fourth branch	.	.	8 sprouts,
Fifth branch	.	.	6 sprouts,
Sixth branch	.	.	8 sprouts.

65—199 total.

This *denouement* will hardly, we think, induce our readers to purchase M. Alibert's book in this country, because the arrangement altogether, the multiplied divisions and subdivisions are such, that on the very first view, none but a disciple of M. Alibert could tolerate, much less study, them.

To return, however, to our original object, namely, a translation of the new edition of the work before us, M. Alibert commences with "Erythema," which we take the liberty to interpret "Inflammation of the Cutis."

Of this he names seven kinds—

1. The spontaneous,
2. The epidemic,
3. The endemic,
4. Intertrigo,
5. The paratrine (from pressure),
6. Chilblains,

an affection, by the way, as well known to involve the cellular tissue beneath the cutis as erysipelas, and

7. Inflammation from burning.

The *spontaneous* form of erythema, he says, is marked by spots or spaces of different shades of redness, as if the parts had been exposed to the rays of a scorching sun. The backs of the hands, the face, the chest and lower extremities, and other parts of the body, simultaneously or alternately, are affected, always having distinct spaces of healthy natural appearance of the skin intervening. This form of disease is accompanied with slight sensations of pricking and irri-

tation, similar to those produced by stimulating applications. A tingling and feeling of stiffness, such as a needle produces on pricking the skin or the sting of a hornet, &c., next follow, and then symptoms of fever supervene. The conjunctiva becomes red in the neighborhood of the carunculæ lachrymales. There is severe headache, and the heat of the skin prevents sleep.

When the affection has attained its highest point, the skin is swollen, and tender, and shining. When it begins to subside it assumes a blue, violet, or yellow color. The cuticle exfoliates, but in a short time it regains its normal state. It is sometimes of a chronic character, sometimes more active.

The *epidemic erythema*, it appears, first attracted the attention of M. Alibert in 1828, when many patients of each sex were received at the hospital of St. Louis from different parts of Paris. The hands and feet of these were affected with swelling, accompanied with a sense of formication or pricking, and tingling, throbbing, burning, &c. It appeared in the infirmary of Marie Theresa, in the Hopital de la Charite, and the Hotel Dieu in the upper stories, with symptoms more or less severe. MM. Miguel, Chomel, Cayol, Recamier, Bally, Chardon, and others, have published remarks on it as it passed under their observation, and of course, in an institution particularly appropriated to the treatment of diseases of the skin, we have not been unmindful of it ourselves. Successive desquamations of cuticle take place in most parts of the body, and particularly about the joints. Our means of observation were more extensive in St. Louis than elsewhere, for the reasons before mentioned. Many of the patients here were found to have vesicles on the extremities, containing a reddish serous fluid. These discharged their contents, and the cuticle exfoliated, leaving dry scales and scurf, which gradually disappeared. On the hands and other parts of the extremities they were thin, but on the feet somewhat thicker, and often very hard and thick indeed. In one case, of a pedlar, the heels were corned and hard as marble, and the lower part of the legs were encased as if in a boot.

The patients presented, besides the appearances described, circumscribed purple, or red patches on the fore-arms, hands, thighs, legs, and feet. A sooty black color of the integuments of the abdomen, chest, arm-pits, &c., also evinced itself in the greater number of cases. One female particularly, whose breast was affected, had the nipple covered by this thickened and black cuticle, which ultimately separated like the cup of the acorn from the fruit. Many were so discolored as to resemble chimney-sweepers, and when scratching off the discolored exfoliating cuticle, and exposing the part beneath was resorted to, it was found covered by a substance like a dried earthy or farinaceous powder. The surface of the skin is in some cases found to be dry and harsh, as if it had been exposed to the heat of an oven.

Numbness of the feet, rigidity of the skin, inflicting much pain in walking, and much inconvenience in moving the fingers were the sequelæ.

This singular epidemic occasionally was accompanied with symptoms of a more serious character; vomiting, diarrhœa, strangury, convulsive and suffocating cough, blindness, &c.

Endemic Erythema.—This is the *pellagea* of Lombardy.

It is, says M. Alibert, a chronic disease of the skin, which shows itself usually towards the end of winter or the beginning of spring. It attacks exclusively the peasantry, who work exposed to the rays of the sun, and who spend the best part of their lives in fatigue and misery. It is reproduced at the same period from year to year, through the life of the sufferer, if he continue exposed to the cause of it. It was thought endemic where it was first noticed among the Milanese, but it is now known to extend itself wherever the same causes are found to exist. Piedmont is not free from it, and cases have been seen at Vienna; and one individual, affected with it, has been seen by M. Alibert in Paris. The manner in which this disease shows itself is as follows:—towards the end of February, or the beginning of March, when the peasants resume their labors in the fields, itching more or less violent is experienced by some of them about the fore part of the neck and chest. The feet, the hands, and face are especially affected, the skin reddens, and a slight erythema shows itself, followed by desquamation about the ninth or tenth day. If, however, the skin is protected by any covering from the heat of the sun, no

THE
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OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
BY GRANVILLE SHARP PATTISON, M.D.
Prof. of Anat. in Jefferson Med. Col., Philada.
PUBLISHED BY DUFF GREEN.

VOL. I. WASHINGTON, SEPTEMBER 24, 1834. No. 42.

mischief arises ; the backs of the hands, then necessarily remaining exposed, are the only parts on which it is seen, a severe smarting is felt, blisters containing a yellow fluid are formed, never becoming afterwards healthy in appearance, but breaking, are succeeded by a blackish adherent crust, which is a long time in separating, and is renewed at intervals. However slight the attack, it scarcely ever disappears before the end of autumn. As winter comes on, the skin approaches to a healthy character, but remains dry and harsh, and shining as if covered with varnish. The following year the disease reappears, and goes through the course described over again. There is a variety designated "*la salsedine*," not so much dependent on the seasons of the year, and irregular as to the period of its appearance. A saltish taste in the mouth commonly experienced gives it this name ; it is felt most in the morning rising. An acrid discharge from the nose accompanies it. Diarrhœa, pale and fetid urine, and an offensive perspiration follow. Loler says that the hair assumes a red and singed appearance, and drops off. Faintings and cramps take place, particularly in the muscles of the lower jaw. The persons affected sometimes have so little command over the muscles of volition, that when they attempt to walk, they cannot turn, but proceed in a direct line, and endeavor to support themselves against any object in their way ; others remain motionless, excessive tremor is the distinguishing feature of other cases ; these and others ultimately become idiots, or at least insane, and a disposition to destroy themselves by drowning is supposed by some to be caused by the burning heat of the skin belonging to the disease.

The fourth species is the *E. Intertrigo*, or chafing between the legs. It takes place in corpulent persons not of cleanly habits, and in young children whose linen is not sufficiently often changed. If acrid, or even healthy urine is suffered to moisten the linen for any length of time, this affection is the consequence. Those who suffer from paralysis of the bladder can hardly be protected from it.

E. Paratrine ; i. e. inflammation from pressure. M. Alibert has two kinds ; that arising in the palm of the hand in labor with hard implements, and that so often seen on the coccyx in bed-ridden patients.

Itching and heat in the palm, and chronic inflammation, thickening of the cutis, and sometimes adhesion of the subcutaneous structure to the tendons of the flexor muscles take place. In such a case some alarm may be reasonably felt.

The skin over the coccyx becomes inflamed in bed-ridden patients. It follows where patients have suffered from typhus, scurvy, and other diseases, wears an aggravated form in the more serious of these diseases. It often terminates in gangrene.

E. Pemio, or inflammation from chilblains.

This is a disease which makes its appearance on the setting in of winter, and disappears as the weather gets warmer. Children, who are most subject to it, experience itching and tingling. The poor exposed to cold show themselves first with sanious ill-conditioned sores, surrounded by thickening of the integuments, which become of a blue color. Some writers think that the bone is occasionally involved.

E. par adustion; or the inflammation produced by burns. The effects of fire on living substances are totally different from those on dead or inert matter. M. Dupuytren, to show more methodically the phenomena of this aniduct, has adopted a division into six degrees. In the first or slightest, the skin is merely reddened. 2. It is blistered. 3. The cutis is involved, and it becomes excoriated. 4. An eschar or slough of the surface takes place. 5. The inflammation finishes by destroying the cellular tissue, and separating it from the bone. 6. The injured part is, in the first instance, and at once, burnt to a cinder.

These different states every one will understand. In one individual they can never all be seen together. An event, however, occurred at Paris, in 1810, which gave French surgeons an opportunity of witnessing them all at the same period, under the following afflicting circumstances. A fete was given in this year by a foreign ambassador to the Emperor Napoleon. An immense assemblage took place; the rooms of the palace, all thrown open to dancers, were discovered suddenly to be on fire. Six hundred persons were surrounded by the fire. Perhaps there was never a greater number of persons assembled, where terror was so powerful as to prevent flight. They were surrounded by fire; every thing favored its activity. The varnished papers, the multiplicity of light, the light and flowing garments of the females, all contributed to favor the fatal element.

The slightest as well as the worst cases of burns were upon this occasion furnished to the French school for attention and observation. Never heart had so much to tremble at, never science so much to learn.

CONTRIBUTIONS ON MIDWIFERY, BY THOMAS RADFORD,

Surgeon-Extraordinary to the Manchester Lying-in Hospital, &c., &c.

Case of Protracted Labor from Malposition of the Fœtal Head at the Superior Aperture of the Pelvis, with Descent of the Funis; with Observations.

About five o'clock in the morning, September 13, 1825, I was requested to visit Mrs. Carpenter, who was represented to be in severe labor of her second child. Mrs. Buckley, the midwife, informed me that she was called to this patient at eight o'clock the preceding night, and in consequence of not being able to ascertain the presentation, she ruptured the membranes. In the course of a short time, she was again examined, per vaginam, but as yet no part of the child was accessible to the finger, but she found the funis protruding very considerably through the os uteri. After hearing this statement, I proceeded to investigate the real nature of the case. I found the os uteri dilated to about the size of half a crown, and situated very high, and very much backwards; it was also extremely rigid, and projected into the vagina. The head was so distant as to be with very great difficulty touched; so that it was impossible at this period to ascertain its exact relative position to the pelvis. The funis was very considerably prolapsed, and pulsated very strongly. The pains were very feeble, and the intervals between them long.

The os uteri being so rigid, a temporizing practice was recommended; the funis was passed into the vagina, and retained by means of a napkin applied externally and a T bandage. The operation of version, or an attempt made to carry the funis upwards into the uterus, in order to save the child, would prove equally unsuccessful; whilst the forcible dilatation of the os uteri, and the unwarrantable introduction of the hand into the contracted uterus, the liquor amnii having been discharged eight hours, would have been a most formidable and dangerous operation.

At noon the funis had ceased to pulsate, but in other respects no great change was observed.

indeed, the descent of the head was so slow, that an advance was scarcely to be perceived the next day at 11 o'clock, A. M. In the afternoon of this day the pains became stronger, so that now the os uteri was rendered tense during their continuance, from the pressure produced upon it by the head. At this time the head lay over the superior aperture of the pelvis, and I was able, for the first time, to ascertain its precise relative situation to the pelvis. It was found entering in a very unfavorable position; the posterior fontanel was placed behind and above the symphysis pubis, the sagittal suture in a direction from this point backwards to the promontory of the sacrum. The left parietal bone was more accessible to the touch than its fellow, in consequence of a slight obliquity of the head. The edge of this bone was very considerably raised, and offered through the os uteri a sharp edge, not unlike an ivory paper-folder. This change fully proves the great pressure sustained by the head in its long diameter. During every pain the os uteri was most violently stretched upon this ridge; so much so as to make the writer dread its laceration.

The difficulties produced by malpositions of the foetal head are fully appreciated by obstetricians. In none is the influence upon labor, for this want of relative adaptation, more conspicuous than in the case under consideration. The head enters the brim of the pelvis with its long diameter, which measures from four inches and a half to four inches and three-quarters, parallel to the short one of this cavity, which does not usually measure more than from three inches and half to four inches. It appears quite evident then from this statement, that a long time must elapse, and a considerable change in the figure of the cranium must take place, an alteration which is frequently fatal to the child, before it can get into the pelvis. In the present case the perforator was used; and as the child had been dead for some hours, and the time was at hand when some decided steps must be taken to protect the mother from danger, no compunction was felt in having recourse to this destructive instrument. As soon as an opening was made into the cranium, the brain was forcibly discharged through it, in consequence of its being so completely destroyed by the pressure it had previously sustained. Notwithstanding this, considerable time elapsed before the head passed through the os externum. This delay, doubtless, was caused by the position of the base of the cranium, which is an incompressible part, and consequently it is not influenced in any material degree by perforation. The ancients regarded this position of the foetal head as the most frequent and the most natural; but this opinion, as experience has proved, is entirely untrue; it cannot be doubted they judged this to be the case, from what they occasionally observed in the situation of the head, when it emerges from the inferior aperture of the pelvis.

Baudelocque, Gardien, Dubois, Flamant, Dewees, Desormeaux, Velpeau, James, and Madame Boivin, admit this variety of labor into their classification; but these writers consider that it is of rare occurrence. Naegele, Maygrier, Capuron, Duges, Dr. Burns, Dr. Campbell, and Dr. Rigby, deny in toto the possibility of its happening, which opinion the case now related, as also those of Dr. Dewees and Madame Boivin, entirely disprove. Notwithstanding, my opinion is, that this position of the foetal head, at the brim of the pelvis, does occasionally happen; yet I must in some measure qualify this statement, by remarking that I consider it to be the result of an undue interference on the part of the obstetrician at the commencement of labor. To the same unjustifiable conduct may be attributed the prolapsion of the funis, which is so frequently fatal to the child. When uterine pains take place, and no presentation can be felt, we have grounds for suspecting a preternatural position of the child; although this is presumptive, it is not positive evidence of such being the case, and does not warrant the practitioner to make any interference. It sometimes happens that this remote situation of the presenting part of the child depends upon the condition of the cervix uteri, this part not being obliterated or fully developed; or, in other words, the full period of gestation not being completed.

Previous to the commencement of natural labor, and subsequent to the complete development of the cervix uteri, the head of the child falls down upon this extended portion of the organ; and, as a next step in the process of labor, the uterus, and its contents also, sink down,

so as to be supported by the margin of the superior aperture. Before these changes take place, the presenting part of the child is with great difficulty discovered, if the examination is made through the os uteri; but if the finger is applied to the cervix, behind the symphysis pubis, it is much more readily felt.

In many instances also, where the liquor amnii exists in large quantity, the presenting part will be obscurely felt, as it so readily recedes before the touch even when only slight pressure is made. The practice of rupturing the membranes, in all the cases now mentioned, in order to ascertain the presentation, is universally to be condemned, as highly detrimental to the welfare of both the mother and the child. When the head of the child is not in contact with the lower portion of the uterus at the time the liquor amnii is suddenly discharged, there is great danger of the funis falling down before the presenting part, and passing through the os uteri; the risk of such an occurrence is much greater if it happens that the cord is of an unusual length; this was the state of the cord in the case just related. In breech presentations, there is a greater chance of prolapsion taking place, if the obstetrician adopts the practice which I have just been animadverting upon. If the membranes are ruptured before the uterus is prepared for action, the head will rarely enter the pelvis favorably; for previous to the sinking of the uterus and its contents, into the superior aperture of the pelvis, the child is easily movable in the waters; this floating of the child may be readily ascertained, when it becomes necessary to make an examination per vaginam, before the completion of pregnancy. But when the uterus has undergone the preliminary changes, preparatory to active labor, the head of the child may be felt through the substance of the uterus, as a globular body, presenting considerable resistance to the finger. At this period it assumes its final position, in relation to the pelvis. These preparatory steps of adaptation are beautifully illustrated in the graphic delineations of Hunter and Smellie. When the membranes are ruptured prematurely, the head sinks down, as also the body of the child, embraced by the contracting uterus, and it is then prevented entering the pelvis in a favorable manner. From such interference the child generally falls a sacrifice, and all the evils of protracted labor are produced upon the mother.

We come now to speak of the treatment of those labors, in which the head is placed with its long diameter parallel with the short one of the pelvis, as happened in the case now detailed. The means which have been recommended are rectification, turning, and perforation. The operation of rectifying the position of the head must never be attempted if the os uteri is rigid and undilated. Those measures, which have a tendency to relax the soft parts, and protect the adjacent organs from injury, must be adopted. Bleeding, carried to the extent that the case demands, or the powers of the constitution admit, emollient enemata, the catheter, and the recumbent position must be prescribed. Two methods of operating are to be considered; one by the use of the hand alone, the other by the aid of the long forceps. If the first method be adopted, the head must be seized in such a manner that the thumb be placed on the posterior edge of the parietal bone, close upon the lambdoidal suture, whilst the fingers are to be fixed upon the anterior edge of the parietal bone, or upon the coronal suture, of the opposite side of the cranium. Then, in the absence of the pains, the head must be slightly raised, and turned by a double action of the thumb and fingers, so as to place it in the oblique diameter of the brim of the pelvis.

The bulk of the foetal head offers a great obstacle to any attempt made to change its position by the hand alone. The difficulties are increased by the contracted uterus after the escape of the liquor amnii. These circumstances induce me to give a preference to the second method mentioned, or the application of the long forceps. The blades of these instruments must be placed on the sides of the pelvis, and over the lateral parts of the head. The first object must be, slightly to raise the head; afterwards a very limited rotatory movement must be made, only sufficient to place the face opposite to the sacro-iliac symphysis. When this is effected, the instrument must be withdrawn. If the energy of the uterus is impaired, then such means must be adopted as are known to excite the contractions of this organ, friction, *secale cornutum*, &c. If these means fail, the forceps must be reapplied over the face and occiput, and the

delivery finished in the usual manner. The perforator must be used, if the child is dead. This is ascertained by the funis being prolapsed, and by the sensations of the woman.

IODINE IN STRICTURES OF THE URETHRA.

Dr. Trusted, in the Berlin medical newspaper, has related a case of stricture of the urethra, enlargement of the prostate gland and testicle, with fistula in perineo, in which he ordered five drops of tincture of iodine three times a day, and a small portion of the ointment of the hydriodate of potass to be rubbed into the swollen parts morning and evening. The swelling of the prostate began to yield and diminish very considerably in eight weeks. Bougies were employed and gradually increased in size.

The treatment of this case commenced June 25th, 1832, and the patient left the hospital nearly quite cured Sept. 11th.

The narrator describes two other very obstinate cases of strictures relieved by the internal and external use of iodine with bougies.

Dr. Ryan proposed to use iodine in strictures of the urethra, and enlargement of the prostate gland, at the Medical and Medico-Botanical Societies in 1832. He employed Mr. Gray, surgical instrument-maker, Castle-street, Leicester square, to make him a wooden syringe for the purpose of injecting the ioduretted solution, proposed by Leydel, into the bladder and rectum in prostatic enlargement. He also requested his friend and colleague, Mr. Crump, to ascertain the influence of iodine, on the various kinds of bougies and metals, so as to ascertain the feasibility of applying it to strictures of the urethra. M. Crump informed him that iodine had scarcely any influence, at an ordinary temperature, on metallic bougies, and he, Dr. Ryan, has smeared bougies with the ointment of iodine with the best effects. He employed iodine, both internally and externally, in enlargement of the prostate, in a case at St. John's Hospital, which was known to Dr. Negri, Mr. Jenkins, and Mr. Nettlefold, with great benefit.

When the solution was injected into the rectum, the man was desired to take repose by lying on the anterior surface of the body; and the fluid was thrown into the bladder, as there was reason to suppose that the enlarged prostate projected into it, as minutely described by Mr. Brodie in his Clinical Lectures on Diseases of the Urinary Organs.

WESTMINSTER MEDICAL SOCIETY.

Monday, January 13th, 1834.—Professor Burnett in the Chair.

Pessaries—Imperforation of the Vagina—Secale Cornutum in Amennorrhœa—Iodine in Pulmonary Consumption.

The usual business having been transacted, and notice given that the paper on venereal sores, by Mr. H. Johnson, was unavoidably postponed,

Dr. Jewel exhibited to the Society a large box wood pessary, which had been extracted from the vagina of a woman aged 52, and which had remained in that situation for 15 years; extensive ulceration of the parts, and offensive discharge had been caused by its presence, and as it is of large size, being eleven inches and three quarters in circumference, considerable difficulty occurred in its removal.

Mr. Costello mentioned the case of a female in the country in whom there was obliteration of the vagina, which had existed for some months; at the time of the menstrual periods she had great pains, similar to those of labor, and there was a tumor in the situation of the rectum; about 12 months since the patient had been confined, and it was since that time that the vagina had become imperforate. A case somewhat similar, in which there was complete obliteration of the vagina, had occurred lately in Paris, in the practice of M. Amusat, who proceeded to tear through the obliterated parts with his finger; the whole of the operation was performed with the hand alone, and with perfect success; the lady, who was a German, shortly afterwards married a medical man. The gentleman, who was attending the case first alluded to, was doubtful as regarded the treatment, and he should be glad to hear the opinion of Dr. Jewel or any other member, as to the proper operation to be performed.

Dr. Jewel said it was not very unusual for the vagina to become obliterated after labor, nor was it difficult to remedy it; he had seen cases in which there was great contraction, yet when labor came on, the vagina dilated, and the patients did well.

Mr. Greenwood suggested the dilator invented by Mr. Weiss, as an instrument likely to be of service where there was any opening, however small it might be.

Dr. Johnson thought that the slow use of caustic might effect a cure; he had no doubt that the tumor was a collection of the menstrual fluid, and he should not hesitate to use Weiss's dilator, for the purpose of seeing where the obstruction was situated, and then to puncture it with a trocar, and he did not think that there could be any possible danger attending such an operation.

Mr. Chinnock said he would not hesitate to treat such a case as one of imperforate vagina, and use the knife.

Mr. Beevor had met with three cases in which the use of the knife had proved fatal; peritoneal inflammation had supervened, and notwithstanding the use of the lancet, and other antiphlogistic remedies, speedy death took place.

Mr. Costello had attended in Paris a groom who died after the introduction of a bougie; the cellular membrane between the bladder and peritoneum was found in this instance to join in the inflammation with the peritoneum.

Dr. Johnson said although peritonitis might occur, he did not think that such a termination ought to influence our practice, since it was very rare. Ague was a more common consequence of the introduction of a bougie, and he had seen great alarm excited by it in the minds of young practitioners.

Mr. Walker recommended a trial of Mr. Stafford's instrument in the case mentioned by Mr. Costello; he had seen a case of stricture in a man, in which the smallest bougie could not even be passed, terminate favorably under the use of Mr. Stafford's instrument.

Dr. Johnson mentioned some instances in which intense periodical pains in the breast of the female, without obvious cause, had led to an examination, when scirrhus of the uterus was found to exist.

Some farther discussion having taken place on this subject,

Mr. Chinnock spoke of the beneficial effects of *secale cornutum* in *amennorrhœa*; he had seen in two cases half dram doses of this medicine prove of decided benefit.

Dr. Jewel had never used it in such cases, but in *leucorrhœa* he had found its administration successful.

Dr. Epps then called the attention of the Society to the sympathy which existed between the lungs and the uterus; in pulmonary consumption where the patient only expectorated frothy mucus, he had frequently observed that at the time of the menstrual period, if the discharge did not take place, pus was ejected from the lungs, and that when the discharge could be produced, great benefit ensued.

Dr. Johnson considered this connexion very remarkable; it was not unusual for hemorrhage, to a considerable extent from the lungs, to take place on the suppression of the catamenia, but in such instances the same degree of alarm was not created as in hemorrhage from different causes.

Dr. Jewel had seen violent symptoms of croup usually preceding the catamenial period.

Several remarks upon the treatment of pulmonary consumption were then made by different members, and different plans of treatment were recommended, amongst others sulphate of zinc, with excess of sulphuric acid, prussic acid, iodine, *mist. cretæ comp.*, and small bleedings.

The time for discussion now having elapsed the Society separated until next Saturday.

ENCYSTED ABSCESS OF THE BRAIN.

A soldier was attacked at the age of 25, with inflammatory fever, accompanied by intense pains in the head, tumefaction of the left parotid gland, and insomnolency; these symptoms

yielded to antiphlogistic treatment, but at the time of his departure from the hospital of Milan he still had pain at the bottom of the left orbit, and tingling in the ear on the same side. Some days afterwards, the febrile symptoms returned, and a swelling was observed in the situation of the squamous portion of the temporal bone; leeches, bleeding, and a fortunate attack of epistaxis, arrested the symptoms, but still the pains in the head returned periodically, and with augmented violence; the tumor increased in size, and he became deaf. No remedies were of any avail, and in a short time he was seized with vomiting, his pulse became small and irregular, and he died.

Autopsy.—The sinuses of the brain were gorged with blood, the membranes and the substance of the brain were also injected, especially in the left hemisphere; the middle and lateral portions of the latter were much increased in volume, and did not present any traces of cerebral convolutions; there was an aperture in the dura mater corresponding to the opening in the left temporal bone; the right ventricle was diminished in size, and above it there was a cavity existing in the substance of the grey matter; the medullary substance in its neighborhood was in a state of ramollissement and contained a cyst, as large as a hen's egg, filled with pus; this cyst had thick walls and a fibrous appearance; it exhibited in its interior the characters peculiar to inflammations of mucous membranes, and was a communication between it and the tumor situated upon the temporal bone.

HÆMORRHOIDS.

We noticed in a former number some clinical remarks made by Mr. Brodie upon the case of Marshall, a patient in Fitzwilliam Ward, St. George's Hospital, who was admitted under his care for piles. These (three in number) were tied, but the operation was not followed by that quick and immediate relief to pain and suffering which it usually affords the patient. He complained for some time afterwards of great pain in the part, and of a heavy bearing down whenever he went to stool, and he also passed some blood at the same time. His countenance was sharp and anxious; tongue clean; bowels open; pulse natural.

R. Confectionis Sennæ, ℥iiss;

Sulphur Sublim. ℥iv., misce. Capiat coch. parv. bis in die.

Whilst examining this patient, a gentleman present asked Mr. Brodie whether he had used the balsam copaibæ in diseases and morbid affections of the rectum. Mr. Brodie answered in the affirmative, remarking that it was a very useful application, and acted in such cases as a stimulant to the parts, but that he did not consider it so useful a medicine in such cases as the confec. piperis nigri, which acted also as a stimulant, and when not taken by the mouth, might be introduced as a track or suppository into the rectum, when it became mixed with the feces, and acted as a stimulant applied directly to the parts. The balsam copaibæ, Mr. Brodie remarked, was also a very good application in old obstinate gleet, when introduced on a bougie into the urethra. Mr. Brodie here alluded to a case of disease of the rectum which he had under his care, and which he believed to be carcinoma, and which he almost believed to be so still, and which had been materially benefited by the use of the balsam copaibæ and liquor potassæ combined together.

The patient complains of less pain, but had some blood come away with his stools a few days since, owing to the separation of one of the ligatures.

R. Confec. Piperis Nigri. Sumat quantitat. nucis moschat. ter in die.

Cont. Electuarium ut antea præscript.

These remedies were ordered to be continued for some time, till after symptoms of the operation were completely checked.

On next visiting him he complained of great pain at each fecal evacuation, and said that the piles came down as much as ever. He was ordered to continue the use of the confect piperis nig.

Mr. Brodie remarked that for one case of hæmorrhoids in hospital practice he met with twenty cases in private practice ; and that when they occurred in hospital practice, they were more troublesome to manage, having generally lasted for a long time, and being complicated with disease of the rectum, from the hæmorrhoids having been neglected.

Under the use of the confect. piperis nigri, the man improved very much, and he was, therefore, made an out-patient, and ordered to continue the use of the confection.

EXTRAORDINARY PHENOMENA.

A middle aged man, of very athletic and robust form of body, presented himself at the Westminster Hospital, a short time since, in order to show himself to the surgeons and students of the establishment. He is completely covered with a green horny substance, in the form of quills not dissimilar to those which are produced on the porcupine. The parts, which have escaped the deformity, are his face, the palms of his hands, and soles of his feet, every other part of his person is abundantly supplied with this green horny substance. He sheds his horns annually, and a fresh crop succeeds. He has been thus afflicted since his earliest infancy, and all the male members of his family, down from the great grandfather, have been similarly well furnished. His general health is excellent, and his secretions very regular.

A model has been taken of him in one of the Borough Hospitals.

ENLARGEMENT OF THE TONSILS.

A young man came to the Westminster hospital some time ago with his tonsils very much enlarged. Deglutition was rendered very difficult, and his breathing was very much impeded. Mr. White, on seeing the case, desired incisions to be made in the tonsils, which treatment was followed by Mr. Finch.

Incisions were made every alternate day in the tonsils, which were eventually cured by this mode of treatment.

METHOD ADOPTED BY M. ROUX TO RESTORE THE PERINÆUM IN CASES OF DIVISION, OR COMPLETE RUPTURE.

The plan recommended by this surgeon is the same as that employed in cases of hare-lip, that is to say, after having pared, with a cutting instrument, the cicatrized borders of the ruptured part, he approximates the edges, and keeps them in contact, by means of the twisted suture. M. Roux thinks that the numerous failures in this operation have been caused by not keeping the internal edges of the wound in contact, and thus allowing of the entrance of fluid between the lips, which would naturally tend to prevent adhesion ; it was, then, with the intention of remedying this, that he has made use of the twisted suture, and with such success, that, out of four cases of old rupture, three have been followed by complete cure ; in the fourth case, the circumstances under which the operation was performed, were so extremely unfavorable, that the patient died. The first performance of the operation was, in the first instance, only partially successful ; for some weeks an opening in the deep part of the perinæum existed, which, however, afterwards closed. This female has since been delivered of a child, without any rupture or other ill consequences.

EMPHYEMA OF BOTH SIDES OF THE CHEST SUCCESSIVELY—CURE.

A young Arab had for some time complained of pains in the thorax, difficulty of respiration, sleeplessness, and a sense of suffocation. On examination, the left side of the chest was found to have acquired considerable development, the ribs were widely separated from each other, and the intercostal muscles stretched ; fluctuation was ascertained ; the tumor was punctured, and several pints of purulent serum, containing flocculi of coagulable lymph, discharged through the opening, which was kept free for several days, and perfect recovery ensued. A month after, the right side, which was healthy at the time of the first operation, presented exactly the same appearances, requiring the same operation, which was followed by a similar result.

THE
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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 1, 1834.

No. 43.

CLINICAL LECTURE,

Delivered by G. J. Guthrie, Esq., F. R. S., President of the Royal College of Surgeons, &c. &c., at the Westminster Hospital.

On the Anatomy and Disease of the Bladder and Urethra.

GENTLEMEN,—There were two cases in this hospital some time back, proving the observations I have made to you. In the first instance, a man was brought in very ill, indeed almost in a dying state, with complete retention of urine, and died. Mr. Taylor, your late house-surgeon, dissected the parts carefully. This person had but one stricture, which you see at three inches from the orifice of the urethra: it is narrow, but complete; and the canal is so much dilated behind it, that a golden pippin of a large size might have been readily placed in it. Nothing was done for this man by those he consulted before he came to the hospital; nevertheless, the simplest puncture by a lancet pushed into this dilated part would have saved his life, if it had been done in proper time. This is one of the best cases I have seen to show the way in which the urethra will dilate behind a stricture, and, at the same time, the corresponding thickening of the coats of the bladder. It is an admirable instance of bad surgery, and demonstrates the necessity that exists for some legislative interference, which shall cause persons, who call themselves surgeons, to be at least reasonably educated; so that, when a man takes upon himself the office of a surgeon, the poor and the ignorant, who may not know much about the matter, may place some reliance on the fact of his having some knowledge of the art, if not of the science, of his profession. I was sent for, about four years since, to Market Street, beyond St. Albans, to see a man nearly in a similar situation. The scrotum was greatly swollen, and was half as large as my head. The urethra, just where it begins to be covered by it, was dilated, so as to form a distinct protuberance, and the skin covering it was black. Nature was going to relieve herself, by making an exit for the urine, by destroying the parts posterior to the stricture by mortification. The ulcerative process necessary to complete the object, had, however, allowed the urine to escape into the cellular membrane of the scrotum. The man seemed to be dying, and there was no time to lose. I therefore at once cut into the urethra, through the slough and through the stricture. The gush of urine which followed gave complete relief. I then made several incisions into the cellular tissue of the scrotum, and squeezed out as much as possible of the urine, introduced a catheter into the bladder through the whole length of the urethra, and returned to London, not expecting to see him again. He called on me, however, some three months afterwards, in good health; the scrotum had not sloughed so much as might have been expected, for which he was indebted to the free incisions

made into it. The urethra had contracted again, and the parts were in many respects deformed, but he felt quite satisfied, and grateful for his life preserved.

The other preparation is also from a person who died in this hospital of inflammation of the lungs. As he was known to suffer from great difficulty in making water, I had the diseased part of the urethra removed. The stricture is a narrow one, at five inches from the orifice, and would only admit the point of a large lachrymal probe to pass through it. This small opening was at the upper and outer part; the urethra behind was not, nor is not, in the slightest degree dilated, although he had, for some years, labored under the complaint. I am induced to believe, from these and other similar cases, that the anterior and posterior parts of the urethra dilate more readily than the middle portion.

A stricture of the urethra is, then, I believe, always a result of inflammation; for, although in some few individuals, the origin may be apparently doubtful, I am inclined to believe, that, if the patient's early history could be accurately investigated, or ascertained, the disease would always be found to have been preceded by inflammation. I have known stricture form in consequence of the passage of calculi from the bladder at an early period of life; but this is by no means a common cause, although the complaint is sufficiently frequent among children; and when strictures do form in such cases, they usually follow as cause and effect, the small stone in its passage having been arrested long enough to produce inflammation, and, in all probability, ulceration at some particular part. The urethra of a very young person or child is not prone to form a stricture: it does not do so without a greater degree of inflammation and ulceration than will give rise to it in an adult; and it seems again to obtain this immunity at an advanced period of life. It is probable that the urethra, about the age of puberty, like every other part of the body, receives a development independently of size, which renders it more susceptible, and which it loses again at a later period of life. Be this as it may, stricture of the urethra is the disease of young men, and not of old ones. An old man may have stricture from his youth, but he never applies to you at sixty, or even fifty years of age, with such a complaint, without being aware that he has long labored under some disease in these parts. If he states that his complaints have only come on of late, you may rely that the neck of his bladder is in an irritable state, or has lost its natural elasticity, or that his prostate is diseased, or, at all events, that the complaint is in the prostatic part of the urethra, and not in that portion which is usually the seat of stricture in younger persons.

Disease of the kidney will often give rise to acute pain at the neck of the bladder, and even at the extremity of the penis. These parts may have become inflamed as well as irritable; the natural action of the urethra may be deranged in consequence, and irritation, inflammation, and stricture may be established in succession, in young persons, in its bulbous portion becoming membranous. An injury on the perinæum may readily, and with due relation to cause and effect, give rise to it; and long continued irritation from disease of the rectum will do the same. Serious wounds of the rectum do almost always give rise to retention of urine, requiring the passage of the catheter, which becomes an important part of the treatment during the first days of inflammatory action; and where neither the bladder nor the urethra have been injured, the difficulty is usually found to exist at the membranous part of the urethra, and not at the neck of the bladder, and is dependent upon an undue contraction of the compressor urethræ, and a want of consent between it and the expulsor muscles. I have never, however, in these cases, (and I have seen many,) found this spasmodic contraction give rise to strictures; the patient has either died from the intensity of the original injury, or the inflammation has been unequal to the production of stricture of a permanent kind, although capable of giving rise to a distressing temporary derangement of an inflammatory spasmodic nature. Irritation of the neck of the bladder in middle aged persons, often occurs from an acrid state of the urine, but it does not in them give rise to stricture.

The common cause of stricture of any kind is gonorrhœa, when neglected and allowed to run on to the chronic state called gleet; and it is assuredly not the severity of the attack that does the mischief, but its long continuance, or its renewal after the most marked symptoms

have subsided. In a regiment of young soldiers of a thousand men, few cases of stricture occur, although hundreds of them may in turn be affected by gonorrhœa. It is only when they become older, and do not choose to undergo the discipline of a hospital, but continue to drink, and do their duty, leaving the disease to itself, or to some nostrum common among them, that strictures occur. The idea which prevailed a few years ago, with some surgeons of great repute, that it was best to do nothing, and allow the disease to subside of itself, under a regular and ordinary course of living, was a fertile cause of stricture in many who supposed they carried the precept into execution. Astringent injections were supposed (and the opinion was at one time carefully inculcated) to have been a common cause of strictures; but I believe there was some misrepresentation in this, almost amounting to something more; for a long and great experience has convinced me that it is not the use, but the abuse, of injections which does mischief, and precisely in the same manner, that doing nothing is the source of mischief. The one is the abuse of two much means, or an improper use of them, the other the abstaining from means of cure altogether; and I further maintain, that it does not signify in what way a gonorrhœa is cured, provided it is quickly cured. But I do not mean by cured, a state in which a greater defect, or another disease, is caused of a more troublesome character. That is not what I call a cure, but only an exchange of one disease for another of a more serious nature.

When a gonorrhœa or a gleet has given rise to positive alteration of structure, or of obstruction in the canal, the symptoms are sufficiently marked, according to the several states and stages of disease, and the discretion and judgment of the surgeon are more called for in the earlier than in the later stages of the complaint; for he may in the first, by doing too much, make that disease permanent; which is only temporary, which would be a great evil; whilst in the latter he can only do a little temporary mischief. In order to understand this, it is necessary to bear in mind that the range of disease, from an inflammation, or spasmodic stricture so called, to an obstinately permanent one, extends from a mere vascular thickening of the internal mucous membrane, and of the cellular tissue which attaches it to the external elastic wall of the canal, unto a thickening and alteration of them with a deprivation of their elasticity, and extending even into the corpus spongiosum, or surrounding parts.

A gleet, or muco-purulent, or nearly serous discharge from the urethra, unattended by pain in micturition, and only accompanied by it when the erectile tissue is dilated, may be caused by several states of the canal. The most common is a chronic, or sub-acute state of inflammation, almost degenerating into passive, affecting the mucous membrane and its subjacent cellular texture only. The next in order is where any, or several of the large follicles are dilated and diseased, a state which occurs most frequently about the fossa navicularis, or first inch and a half of the urethra; and, lastly, when ulceration takes place from either of these, or any other causes in the course of the urethra generally, from the external orifice to the neck of the bladder. The first state may exist for many months, and then gradually cease, and the parts be restored to their natural state, without leaving any mischief behind, although it very rarely does so, unless the habit of the patient's life has been temperate. I occasionally see some old friends of mine, whom I had under my care near thirty years ago, and who suffered in this manner for ten, twelve, and eighteen months, drinking all the time from one to three bottles of wine a day. They never have had strictures, nor have them now, but these are *rare aves*, and I could note a long catalogue of others who comported themselves in a similar way, who have long since been numbered with the dead, or are suffering for their errors; and it is from the observation of a great number of these cases, and of the general results of the different kinds of treatment, that I am induced to say, cure your disease quickly, but cure it carefully and thoroughly, and it signifies not by what means. You will often find that what cures one person will have no effect on another.

The chronic state of inflammation, essentially constituting gleet, may be quite local, but it is frequently constitutional, and can only be cured by constitutional treatment; and it is not easy to decide when the constitutional treatment should entirely supersede the local, or be combined in a particular manner with it. It must be regulated by that tact which is obtained by good

sense, founded on good teaching and on observation. When the patient is regular in his habits and apparently in high health, the distinction or discrimination becomes very difficult, and the practical result often belies the preconceived opinion. When a gonorrhœa has terminated at the end of three or four months in a thin watery discharge, which is scarcely perceptible at times, although easily brought on, and becoming considerable on a slight excess of any kind, there is a part of the passage in a chronic state of inflammation, which general treatment will rarely cure, and which local means, without great attention, will not reach; for it is rare that this low inflammation is confined to the specific distance of Mr. Hunter or the first two inches, but, on the contrary, more usually exists also in those parts in which it has been excited by sympathy, or by extension of inflammation, viz. the bulbous, the membranous, and the prostatic parts of the urethra. It becomes, therefore, advisable that the affected part should be ascertained by the bougie, which is also often the best means of cure; but it is a two edged instrument, alike the means of health and safety, and of misery and long suffering. In the hands of a skillful surgeon, it is the harbinger of health, in those of a rough and violent one, it is the cause of disease. If there be a lesson which deserves and demands a most strict observance, it is that which inculcates gentleness, lightness of hand, and patience in the use of the bougie, as opposed to roughness, force, and haste. It is agreeable, sometimes, to pass a bougie readily where another has failed; it is flattering to self love to pass a larger one, and the patient himself often exults as well as his surgeon, but in the end he will have nothing to boast of, except, perhaps, a permanent stricture. The bougie, selected for an examination of this kind, should not exceed two thirds of the size of the orifice, and should be passed along the canal until a sensation of pain is experienced, when its progress should cease; if there is little thickening, the pain will gradually subside, and the bougie may again be gently pressed on. If it now passes easily, and with little sensation, it is of a proper size to do good, but, if at the attempt to pass it, the pain is augmented, it will generally do harm, and ought to be withdrawn, and a smaller one substituted on the next occasion, and so on, until one will proceed with little comparative inconvenience. It is in these cases that the first introduction of a bougie often causes the patient to faint; and to prevent his falling, and to enable them to act with vigor, sometimes a vigor beyond what the case requires, some surgeons place their patient's back against the wall. This you have seen I never do, because I take it to be a most butcher like proceeding; but there is no disputing about taste, and some persons like that position, because as they say they cannot flinch. For these cases a soft bougie is the best, it looks less formidable although it does not always pass the easiest. The pain is usually felt in the bulbous part of the urethra, if there be no disease anterior to it; and it is usually described as a sharp pain, differing from the subsequent or burning sensation experienced on the bougie passing along the membranous and prostatic parts, and which is also accompanied by so strong a sensation of making water, that the patient says it is actually coming, and in some rare instances it does positively flow, although usually it is but a heightened sensation, and he sees to his surprise that it is so. It is now that he feels sick, turns pale, fancies a thick mist before his eyes, drops of perspiration stand on his forehead, and if not assisted, he falls, even before he can ask for a chair or a glass of water. I always let a patient stand before me, and with an arm chair behind him, and, when I see these symptoms coming on, I seat him in the chair, and bend his head down until it touches his knees, which removes the faintness better than water or any cordial you can offer him. This faint feeling is hardly experienced a second time, and very rarely a third. I have known it, however, always recur on the introduction of a metallic bougie, but never on that of a soft one. The instrument should not in these cases be used more frequently than once every four days, and the size should be very slowly augmented. If the bougie meets on the second trial with a greater instead of a less obstacle, or gives more pain, its use must be desisted from for a time, and perhaps never resumed. If it be continued, the mischief will gradually increase; and at last a permanent stricture may be the result. The surgeon has, in fact, caused and kept up such repeated irritation, that the inflammation has extended into the adjacent elastic structures, and given rise to a greater evil than it was intended

to cure. In these cases, leeches, the warm-bath, and other remedies, I shall frequently allude to for the cure of irritable urethra, must be had recourse to. The part often bleeds in such cases on the slightest touch, and will do so sometimes even when the bougie is doing good, not harm; but I have never found a bleeding of this kind mischievous; on the contrary, it seems to do good, by relieving the overloaded and excited vessels, so much so, that I think patients usually say, after they have ceased to be alarmed by it, that they do not mind a little blood, as they always feel easier after it; an old sufferer invariably says so. A large bougie, carried forcibly through a urethra of this kind, sometimes cures, which appears paradoxical, but the fact is, that a great deal of irritation is excited of a new kind, and, under the means employed for its reduction, both that and the old irritation gradually diminish, and even actually disappear, leaving the part nearly in a state of health, and into which it ultimately passes; more often, however, a great and permanent accession of irritation is the result, extending even to the mucous lining of the bladder, and giving rise to great distress. An officer of dragoons, suffering from gleet, applied to a surgeon, saying he must leave town that day to join his regiment; on which the other replied, that he must then do something for him, and passed down a large bougie, which only went through with almost intolerable pain. The gentleman traveled the same night to his regiment by mail, was laid up for three months, and came back to town to put himself under my care, making his water every hour, which was loaded with one third part of muco-purulent matter resembling pure pus. It took three months more to remove the symptoms thus caused by the introduction of a bougie a little too violently. When the complaint is trifling, and the mucous membrane but little swelled or inflamed, the method of Bruninghausen, which consists in firmly closing the orifice of the urethra, by pressing the sides of it against each other, and then dilating the canal by attempting to make water, which is thus prevented from flowing, may do good in a similar way to the bougie, but it cannot, I conceive, be useful in cases of permanent stricture.

When the patient will submit to an examination of the part by the bougie, so that the seat of irritation may be ascertained, the cure can almost always be completed by it, provided the part is not very irritable or of great extent, or there is nothing peculiar in the constitution of the patient; in either of which cases it will not succeed, nor in some without other assistance, in which the bougie fills the canal without pain, yet the discharge still continues. A gentleman placed himself under my care some half a dozen years ago, on account of a gleet, for which he had consulted several persons in vain. On examining the urethra, I found he had such a very large one, that all my silver sounds were too small to fill it, I had therefore two steel ones made, Nos. 19 and 20, the last larger than my fore finger, and it was only when the canal was dilated, so as to be put a little on the stretch, that he was cured; but this was not done without the aid of an aluminous injection. This gentleman always laughs and gives me a nod of recognition when we meet in the streets, and I certainly have never seen such another urethra, except, perhaps, a similar one might be found in one of the mummies at the College.

I cut off the arm of an officer of cavalry, in front of Fuente Guinaldo, in the year 1811, and met him in 1816, in Bond-street. He said he was under the care of the late Mr. Pearson, for a discharge and strictures, but would leave him if I wished and come to me. I told him not to do so, but to stay where he was well off. He did so, and six weeks afterwards he called on me, to say that his urethra was perfectly sound, save the discharge, which was quite as much as ever, and that Mr. Pearson had recommended his taking the chalybeate Cheltenham waters. I advised him to obey orders like a good soldier. He did so, and, in the course of a month, as his health amended, his complaint disappeared. He calls on me now when ever he comes to town, to have a bougie passed, and occasionally, although one armed, uses one himself.

A nobleman applied to me last year, on account of a discharge, which yielded tolerably easily to cubebs or to copaiba, or to a mixture of either, or of both with the tinct. benzoës, comp., but as soon as they were omitted it returned, and injections fared the same fate. I did my best, but with no better success than my predecessors. I then recommended the bougie, but this he disliked, and went to Dublin, where he met with no better success. From thence he traveled on the continent, and was ultimately cured by the waters of Spa.

It often happens that the same remedies which have proved inefficient at one time, will render especial service at another, and the same may be said of injections. A gentleman applied to me under similar circumstances with the last, despairing of being cured, having, as he said, tried every means of stopping the discharge in vain. He had taken cubebs in the usual manner, with only temporary advantage, but by swallowing two dram doses every two hours, when awake, for three days, it was at last permanently arrested, and he has lived to contract several other gonorrhœa, which have proved less obstinate; the successful method in this case is not, however, less fallacious than any other. In another case, of nearly similar character, the tinctura ferri muriatis effected a cure, I believe, not from any specific influence on the urethra, but by amending the general health. Quinine acts in a similar manner.

When one spot only in the urethra is irritable, and resists the use of the bougie, however gentle the manner of introducing it, I am in the habit of making applications direct to the part. An ointment, composed of the *argentum nitratum*, *liq. plumbi subacet.*, and *ung. adipis suillæ*, in varied proportions from two grains to ten of the former to one dram of the latter, is an admirable application. Its great efficacy in chronic inflammation of the eye induced me to use it for chronic inflammation of the urethra, and I have reaped the greatest advantage from it in many very obstinate gleet, depending on chronic inflammation and thickening of the mucous membrane, even of the prostatic part of the urethra, where by common consent of all British surgeons, no caustic in its solid form ought to be applied. Lead, opium, belladonna, used in a similar manner; the dregs of the *vinum opii* mixed with lard have all been useful in removing that degree of irritation which stimulants can alone control and subdue. These applications must all, however, be used with caution and judgment; in fact, they must be used but not abused.

When the urethra is generally irritable, I have not found them equally serviceable, and as this state seems to be materially dependent on the constitution of the individual, general means of cure are of more importance than local ones; indeed the surgeon should abstain from them altogether; the urethra should never be touched, although remedies may be used externally, such as the mercurial or iodine ointments, or even blistering, or the *argentum nitratum*, applied so as to produce that effect.

The internal remedies I rely most on, in such cases, are mercury and hemlock, with rest and attention to diet and the state of the bowels; the occasional application of leeches and the hot-bath, followed by a change of air, to the country, or the sea-side. I have never sent a patient, under such circumstances, on a tour up the Rhine that they have not returned quite well, provided there was no permanent stricture. The *pil. hydrargyri* I find the best preparation, in the proportion of from one to two grains three times a day, with from three to ten grains of *extr. conii*. The effects of the one on the gums, and the other on the head and stomach must be carefully watched, and the remedies increased or diminished accordingly. When the patient has gone through a long course of saline and alkaline remedies without effect; when cubebs and copaiba, and the terebinthinæ have failed, and bougies of every kind have only rendered the part and the patient more irritable; these remedies, and a change of air and scene, if only for a mile or two into the country, will often prove most efficacious. If a young man, with an irritable urethra, will go to dinners, balls, and the opera, and drink wine, and sit up until two in the morning, you had better wait until the season is over before you endeavor to cure him.

When the gleet is dependent on one or more excrescences in the urethra, their bleeding and the sensation communicated by the bougie will usually lead to the suspicion of their existence, and it will ultimately cure them; for, in such cases, internal medicine cannot I conceive be of any avail. When from the pain being felt at one spot, and one spot only, or particularly, and which can be made manifest by external pressure, in the first five or six inches of the urethra, and it does not yield to common means, although the bougie, of a full size, meets with little obstruction, it is probable an ulcer exists at that part, and the *ung. argent. nitrat.* will be of great service. I have had two cases lately under my care, in which a gleety discharge was attributed to a painful spot within the first inch of the passage; this increased, and the ulcer,

luckily proceeding forwards, became visible, and at last affected even the orifice, with a very syphilitic aspect; the cure in both was effected by a gentle course of mercury, and a mild astringent injection.

Sir E. Home has delineated the follicular appearance of the urethra exceedingly well in one of his magnified engravings. Some of these follicles, as well in the fore as the back part of the urethra are large, and when affected by chronic disease become much more so, and resemble small cavities or sacs, in which a pea might be lodged, and in which the point of a bougie will often catch. In the prostatic part of the urethra, the ducts of the prostate will also give rise to a similar result, so that the stoppage of the bougie in this situation would often lead to the suspicion of stricture, and to much mischief if stricture were admitted to take place in this part. In the anterior portion, a larger solid bougie always rides over the spot where a smaller one has caught, and shows the error, which an impression taken on a soft bougie will prove; although the freedom with which the urine passes belies the possibility of a stricture to the extent of apparent obstruction. These follicles will often prove very intractable, particularly when situated just behind the glans penis. I find an injection of the solution of the *argentum nitratum*, of from six to twelve grains to the ounce of distilled water, one of the best remedies, as it can be made to enter the cavity of the follicle without difficulty. Sometimes the follicle does not enlarge at its orifice, but on the contrary, the opening into the urethra, seems to become smaller or to be positively closed up, whilst the inflammation continues in the cavity itself. Under these circumstances, the cavity enlarges, so as to be felt externally; and when this takes place, as it occasionally does, just behind the *frænum præputii*, it gives rise to a very troublesome disease. The little cavity being put on the stretch by the secretion poured out within, at last yields, I believe, by ulceration, and a portion of its contents are effused into the cellular structure between the two layers of skin forming the prepuce, and through the internal layer of which, near the *frænum*, or near the fold or edge, it at last finds its way, and one or two small sinuses are thus formed, which are more disagreeable than painful. A very fine lachrymal probe can be made to follow the course of these sinuses, which often communicate and lead to the original seat of evil. The first person I had occasion to treat, laboring under this affection, was a lieutenant-colonel in the army, in the year 1816, who had two sinuses of the kind described, one on each side of the *frænum*. These I divided; then the *frænum*, then the outer wall of the urethra, which is here very thin, so that the cavity of the follicle was exposed; and when a solid sound was introduced into the canal, it seemed to be covered by the thinnest possible layer of membrane only. Under slight stimulants and astringent applications this gentleman got quite well. I have seen several cases of the kind since, which, as far as I recollect, have not attracted the attention of surgeons, writing professedly on these subjects. The last was of a neighbor of mine, residing in Cork street, who, after a gonorrhœa, suffered from an inconvenience of this nature. He had applied to three surgeons of great reputation before he came to me; and had worn a silk thread, by way of a seton, in a double sinus for the last three months; this I removed, and then divided the sinuses in the prepuce down to the follicle; they healed in consequence, and removed all the inconvenience he labored under, the prepuce about the *frænum* being only a little more moist than usual from the secretion from the follicle. He says himself that he is quite well and cured of his disease. Instead of the enlarged follicle yielding and discharging itself externally in this manner, it sometimes increases in size, and by pressure can be made to empty itself into the urethra, which it does in less quantity at all times, and thus keeps up an interminable discharge. When ulceration has taken place in the orifice, so as to enlarge it, instead of diminishing it, as in the previous instance, the urine gets into and distends it on every attempt to make water. Pressure of the finger, on such occasions, and the use of mild stimulants and injections, will frequently give rise to the diminution of the swelling, and the cessation of the discharge; but if the swelling should increase, and threaten to inflame, and burst externally, the surgeon should anticipate this process by opening it, so as to have sound instead of ulcerated external parts, and then endeavor by stimulants, such as the red precipitate, or the green digestive ointment, or the

argentum nitratum, alternated with the sulphate of copper, to induce it to heal from the bottom. I have seen every effort, however, fail, and a permanent small opening has been the result, requiring the pressure of the finger upon it every time the individual passed his water. When a follicular gland of this kind becomes hardened, and shows no sign of alteration, it may be left to nature, but sometimes, in addition to the hardness which can be felt by pressing the corpus spongiosum between the finger and thumb, a secretion takes place from it keeping up a gleet discharge, accompanied by irritation, and occasional chordees, which render the patient very uncomfortable. Nature does little, and stimulants do less in these cases. From the ung. hydr. c. camph. I have derived considerable advantage, provided it is long continued, and at length a cure will be effected, if the patient will be regular and continue its use for a sufficient length of time. I have also seen much good follow the application of a blister, and where all other things have failed, pressure made by introducing a moderate sized catheter into the bladder, and then by strapping around that part of the penis with sticking plaster. The catheter should not be too large, or it will produce irritation, neither should the adhesive plaster be applied too tight. The patient must be kept quiet, and in bed or on the sofa, and on any irritation supervening, the process must be for a time suspended. Sometimes these swellings, or tumors resembling them, dwindle away into small indurations, which become almost of a cartilaginous hardness, the erectile tissue in which they are situated appears to have lost its natural property, and whilst every other part is fully distended, this remains a small hard tumor. In some cases it is absorbed, leaving, however, a hardness, which does not admit of the part being dilated, and causes a hollow in it, when the rest of the erectile tissue is distended. I have seen the same thing take place in the corpora cavernosa, when they become more or less crooked, on dilatation taking place, and the part, in some rare instances, seems to be changed into bone.

THE PROBABLE DURATION OF THE LIVES OF MEDICAL PRACTITIONERS.

Professor Gasper, of Berlin, states that the ordinary duration of life in the human being is seventy years; but that a very few medical practitioners attain this age, and scarcely one out of fifteen advance so far as eighty. Half the total number of practitioners perish before fifty. There is no profession, he states, in which there exists so much moral contention and fatigue, or which permits of less repose, the regularity of which is so essential for the interior as well as the exterior of life; none which exposes the body to such disastrous influences of the atmosphere, to such disturbance of nocturnal repose, to such watchings, to such irregularity of living, to such disorders of the digestive organs, and to such moral affections. To this I can add, he continues, the unknown number of medical men who perish from contagion. This statement confirms the truth of the old adage,

Medice vivere est misere vivere."

THE CHEMICAL CHANGES PRODUCED IN COFFEE BY SEA WATER.

M. Girardin, Professor of Chemistry, and Member of the Committee of Salubrity at Rouen, has, by request of the Mayor of the town, analysed coffee thus injured. It appears from the result of this examination, that its chemical composition is much altered, as many of the constituents contained in the coffee seed, especially *caffeine*, were not detectable, and the others had become so modified, that by reactivities their proper characters were not to be distinguished. The coffee examined contained no salts of copper, or any other metal, though it had remained at the bottom of the vessel coated in this metal. Nevertheless, he concluded that such injured coffee ought not to be exposed for sale. The same chemist had to examine a succedaneum of coffee, sold by a grocer at Rouen, and found it composed of burnt rye. A person named Kint, in the United States, took out a patent for a confection of coffee composed of the same class of grain, to which he added some eggs, and a little burnt skin of the cod-fish.

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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 8, 1834.

No. 44.

OBSERVATIONS ON THE USE OF BLISTERS IN BUBOES, AND OF TINCTURE OF IODINE
COMPRESSES IN HYDROCELE.

By P. Ricord, D.M. P., Surgeon of the Hopital des Veneriens, &c.—Translated by Alexander Thomson, M.B.,
of St. John's, Cambridge.—From the Journal des Connaissances Medico-Chirurgicales, for Jan., 1834.

Of Blisters in the Treatment of Buboës.

Blisters have been used in the treatment of buboës, but all practitioners are not agreed upon the precise circumstances indicating them, and which we shall endeavor to develop, in an ensuing article upon this subject. M. Renaud, doctor of medicine, and a distinguished professor of Toulon, has recently proposed, in a work presented to the Academy of Medicine, the employment of the blister in all, or almost all, the cases of buboës, without distinction of period or duration. From the explanations, which he himself had the kindness to give me, when he did me the honor to visit my clinical service at the Hopital des Veneriens, I have employed his method, which consists in placing upon the buboës a blister, which on the next day is dressed with linen ravelings, soaked in a solution of the deuto-chloride of mercury, twenty grains to an ounce of water, and the following are the results I have obtained.

In twenty-three patients affected with syphilitic buboës, or those deemed to be such, fifteen were not yet arrived at the period of suppuration, and eight were already suppurated, the skin more or less attenuated, and the purulent collection united into an abscess.

Of the first fifteen patients, seven have been obliged to have successive blisters, the solution of the corrosive sublimate not having at all kept up the suppuration of the skin. Of this number six have been cured without suppuration; and, by a resolution, arriving more speedily than by the ordinary means. In one, the suppuration supervened, and it was necessary to open it; the other eight had blisters; two have been cured by resolution; six have opened spontaneously, of which two did with a vast separation of the skin.

In the eight patients in whom the buboës had already suppurated, and who had equally had blisters placed according to the method of M. Renaud, two have been cured, without their buboës having opened, the pus having been little by little reabsorbed, and the skin at the surface of the blisters having presented that sort of purulent transpiration indicated by M. Renaud.—In the other six, after spontaneous apertures, and a great separation of the attenuated skin, it has been necessary to have recourse to the caustic potass or to the bistoury.

These results that we present here in mass, and without precisising the cases, since the author of this method applies it to all, have not given us the same results as to him; for M. Renaud has told us that, with the blister, spontaneous apertures of the buboës are very rare, and that more rarely still, has he been obliged to have recourse to artificial apertures.

Without participating entirely in the opinion of my brother, our results have been different. I think that the blister, applied in suitable circumstances, and which we shall hereafter appreciate, is a powerful means in the treatment of buboes.

Employment of the Tincture of Iodine for the cure of Hydrocele.

Cases of hydrocele, independent of any syphilitic cause, frequently present themselves in my ward; and I have already been able to employ, in five patients, a new means in the treatment of this affection, and one which has furnished me happy results; this means is the tincture of iodine, diluted with distilled water, and applied upon the tumor by aid of compresses imbibed with it, and in which the scrotum is enveloped. The different degrees of concentration, in which I have employed it, are the following:—

Take of	
Tincture of iodine, 1 dram	} ⊕ by weight, Fr. measure.
Distilled water, 3 ounces.	
Mix them.	
Tincture of iodine, 2 drams	} ⊕ ditto.
Distilled water, 3 ounces	
Mix them.	
Tincture of iodine, 3 drams	} ⊕ ditto.
Distilled water, 3 ounces.	
Mix them.	
Tincture of iodine, 6 drams	} ⊕ ditto
Distilled water, 3 ounces	
Mix them.	

In a subject whose skin is very delicate, and the epidermis thin, the first formula suffices.—When there is less sensibility and some hardness of the tissues, it is passed on successively to the other formulæ. For the medicine to act, the patients must experience a rather vivid, but supportable sensation of heat, and without there being burning or vesication, the skin of the scrotum must become brown, or pass into brownish red, the epidermis becoming *like parchment*, and forming scales, that are detached, leaving beneath them a sort of thick transpiration still without vesication. So long as these results be not obtained, the dose of the tincture of iodine must be increased, the quantity of distilled water remaining the same; but when these effects have been succeeded in being produced, the same degree of concentration of the tincture must be continued by renewing, twice a day, the compresses steeped in it. If pain supervenes, it is suspended for some days, and resumed subsequently, until the disappearance of the tumor.

The following cases, drawn up by M. Rattier, and collected in my service, will show the advantageous results of this method of treatment.

Jean Gouttel has been for nine years back affected with a hydrocele of the left side, of which the formation had been preceded by an orchitis, the result of a blow on the testicle. The tumor has remained stationary up to the present day, 5th October: its bulk equals that of a large turkey's egg; the tunica vaginalis appears distended with more force than usually; but no symptom of inflammation is remarked.

M. Ricord ordered the use of the tincture of iodine at 2 drams. Until the 4th day the action of the medicine is little marked; on the 6th the epidermis is detached in brownish scales, and abundant transpiration is produced; on the 7th the tumor is much less tense,—there is formed upon the scrotum a sort of dry and blackish pellicle. On the 15th October, new exfoliation, the scrotum is very humid, the tumor is diminished in bulk,—it is no more than one-third of its primitive size; the solution is carried to three drams. The phenomena we have indicated are reproduced regularly until the 2d of November, and the patient goes out cured. M. Ricord has again seen Gouttel on the 23d November, and the cure has appeared to be radical.

To this observation we shall add those we have already published in the *Gazette des Hôpitaux*, and equally drawn up in the clinical service of M. Ricord.

Pierre Verger, fourth ward, No. 14. affected with an incysted hydrocele of the cord, has been cured, after fifteen days' treatment, by the use of the tincture of iodine, employed at first during five days at a twenty-fourth, and the following days at a twelfth.

Claude Cardot, first ward, No. 4. This patient has been perfectly cured of a hydrocele, of a considerable bulk, in thirty-six days. During the first fifteen days, the solution of the tincture of iodine at two drams was employed, and afterwards at three drams.

Jacques Fauche, first ward, No. 29, for the radical cure of a hydrocele, complicated with induration of the testicle; it has required thirty-five days' treatment, during the first ten the solution was at two drams.

Delorme, first ward, No. 18. In this patient the treatment has been long, but in some measure proportionate to the bulk of the hydrocele; the solution of two drams has been employed during thirty days nearly, and during twenty days the solution at three drams.

WESTMINSTER MEDICAL SOCIETY, SATURDAY, FEBRUARY 15th, 1834.

Dr. Copland in the chair.

Organic Diseases of the Stomach—Dyspepsia—Gastritis.

The usual business having been transacted,

Mr. Parkins read a paper on organic diseases of the stomach, to which, he said, that during the last few years much attention had been directed; and that consequently many new facts connected with them had been elicited. Inflammation of this organ was seldom acute, unless when the consequence of the exhibition of poison; but it was, in ordinary cases, found principally to exist in the chronic stage, and to give origin to those forms which are termed organic diseases. He then referred particularly to tubercles of the pylorus, and ulceration of the coats of the stomach, and entered into the symptoms, which were, however, often found to vary; when the tuberculated state was situated near the pylorus, he had found that the pain was generally referred to the right hypochondrium, but the symptoms were so similar in many of these diseases, that no criterion could be formed from any one. The testimonies of Dr. Andral and Dr. Abercrombie, were adduced in confirmation of the opinions of the author, and a case was related which showed that ulcers might exist without causing any of the usual symptoms, and that the greatest alteration of texture might take place without affording any diagnosis to the observer, by which he might suspect the existence of such alteration; the causes of death in such diseases were then reviewed, and the author terminated his paper by some remarks upon the treatment, among which alkalies, oxide of bismuth, &c., were recommended.

Mr. Hunt considered that this was a subject of great importance, and demanded the most serious consideration of the Society. A friend of his, long a member of this Society, had been attending a lady who had pain in the stomach, but no urgent symptoms; he had recommended her to try change of air, and had said to her that her complaint was of a trifling nature, and would soon be benefited; for a short time she got better, but one day in his presence she suddenly expired; on examining her body, a hole was found completely circular, as if made with a punch. Another case, having a similar termination, was related. Mr. Hunt then commended the author for the paper which he had read, but regretted that he had not expended a little time on the primary diseases of that viscus, as he (Mr. H.) thought that, by directing attention to the commencement, many of the most formidable consequences of the disease might be averted. One or two instances were then referred to, where change of diet, &c. had effected a cure.

Dr. Johnson directed the attention of the meeting to the difference of the symptoms in disease existing at the cardiac orifice, and at the pylorus; in the latter, food would remain for some hours in the stomach without being rejected, and without causing any particular symptoms; but after a time pain succeeded, and then the stomach was not at ease until the offending food was ejected. He considered that there was a great difference between the symptoms and pathology of diseases of the two orifices, and ulceration of the coats. The following curious case had occurred in his practice:—A young man was seized with excruciating pain in the abdomen after a very hearty dinner, and a rupture, with which he had been some time troubled, became greatly distended. Mr. Stanley visited him, and, recognizing the existence of strangulated hernia, proceeded to operate; on opening the sac a great quantity of undigested food

escaped, much to the operator's dismay; the patient, however, shortly died, when an ulcer was found to have penetrated the coats of the stomach, and to have allowed of the escape of the undigested food into the abdomen. The edges of this ulcer were thickened, and it had evidently existed some time before it had burst; this was one instance in which disease might go on in the intermediate parts without causing any of the symptoms generally found. One remarkable symptom of contraction and disease of the pylorus was constipation, and the diminished calibre of the stools; frequently, also, the enlarged pylorus would be found on the left side of the umbilicus, or even below it, and was such as frequently to mislead the practitioner.

Dr. Ryan observed, that the author of the paper was entitled to much praise for having brought before the notice of the Society so much valuable information on organic diseases of the stomach, and more especially on the difficulty of distinguishing them during life. The majority of the profession were too apt to apply the term dyspepsia to all diseases of the stomach, whether a subacute or chronic gastritis, and the various morbid lesions attended by the usual symptoms. It was well known that scirrhus of the pylorus often proved fatal, and that the subject of it had been treated for dyspepsia. He had known two examples of this kind, and was present at the autopsic examinations. He had been consulted within a few days on the case of a gentleman, who was supposed to labor under dyspepsia, and treated accordingly, and desired to go to the country, as very little was the matter with him. He had been ill since Christmas last, and was ordered infusion of cascarrilla, with soda, which very much aggravated his sufferings, and he felt so exceedingly unwell, that he sought for other advice. At the time of his application to him, (Dr. R.) he complained of pain on pressure along the transverse arch of the colon, at the epigastrium, which was now almost constant. He suffered from flatulence, and the eructation of an acid fluid, which produced a burning sensation; bowels open; pulse regular; tongue yellow in the centre, and white towards the edges; appetite tolerably good; vomiting once or twice daily; no emaciation; no sleep. Leeches were ordered to the site of the pain, cold water, or barley water, with milk, and the diet to consist of arrow-root, tapioca, &c. The relief he obtained by this plan of treatment was astonishing; and this was observed in several cases of the same kind. He (Dr. R.) had seen the stomach one mass of scirrhus, and its cavity so small as not to contain more than a table-spoonful, though the disease was not suspected during life.

Mr. Johnson wished to ask if, in the case referred to by Dr. Ryan, the tumor was of a pulpy structure, or whether it had all the characteristics of firm hard scirrhus.

Dr. Ryan replied, that it was true scirrhus.

Mr. Johnson continued, and said the cases which were most commonly mistaken, were, in his opinion, those in which the soft medullary tumor occurred, for it was in this form that the greatest irregularity of symptoms took place; he had observed, also, that the feces, as mentioned by his father, were much diminished in size. Speaking of gastritis, he said that, during last year, after the disappearance of the cholera from the Lock Hospital, almost all the patients had been attacked with muco-gastritis, and that in every instance the symptoms had yielded to the application of leeches and counter-irritation.

Some further remarks having been made by several members,

Dr. Johnson said, that perhaps as Dr. Ryan had referred to the distinction between dyspepsia and gastritis, he would favor the society by relating what were the distinguishing features of the two diseases.

Dr. Ryan said, that the diagnosis between dyspepsia, or functional derangement of the stomach, and gastritis, when the disease was very slight, and confined to a patch or two of small size, was extremely difficult. In cases of long standing, in which the supposed dyspepsia had been treated by tonics, purgatives, &c., and aggravated by these remedies, the symptoms having become more severe, there being pain at the pit of the stomach, or in some other part of the organ, increased on pressure, with cardialgic or burning pain at the cardiac orifice, often compared to that produced by boiling water, melted lead, &c., with nausea, occasional vomiting, and constipation; the pulse being unaffected, no fever present, he should have

no hesitation in applying leeches, followed by counter-irritation, the exhibition of cold fluids, low diet, and regulation of the bowels by enemata. He had treated a great number of cases, both in dispensary and private practice, on this plan with success. The diagnosis was, however, extremely difficult in many cases, in which the subjects had not indulged in dram drinking; and here, though the symptoms were often severe, especially in those who pursued sedentary occupations, they generally yielded to purgatives, and tonics, combined with the essential oils, and that very rapidly. In all cases which were aggravated by tonics, spirituous liquors, or purgatives, he was of opinion that there was a greater or less degree of inflammation of the mucous membrane of the stomach, and they ought to be treated accordingly.

Mr. Hunt was of opinion, that the state of the pulse, which was small and sharp, like that indicative of abdominal inflammation, and that of the tongue, which was red in the centre and white towards the edges, afforded a clear diagnosis between dyspepsia and gastritis.

Dr. Ryan replied, that these symptoms were present when gastritis was well established, and when it could not be mistaken; but Dr. Johnson's inquiry was relative to the diagnosis of both, when one was passing into the other, and to this he confined his reply.

Dr. Chowne was desirous to learn from Dr. Johnson, whether the calibre of the feces was always diminished in scirrhus of the pylorus.

Dr. Johnson replied, that it was not in an isolated case that he had observed this symptom, but he considered it as generally present, and he thought that the small quantity of nutritious matter conveyed into the intestinal canal, and consequently the diminished call upon the powers of the tube would cause contraction, and thus account for its existence. In reference to what had fallen from Dr. Ryan, he thought that gastritis could not exist without dyspepsia, whilst dyspepsia might be present without gastritis; but he fully agreed with Dr. Ryan, that the result of the treatment was the best criterion of the disease.

CASE OF DROPSY OF THE PERITONEUM, OF ELEVEN YEARS' DURATION, CURED BY IN-
UNCTION WITH HYDRYODATE OF POTASH AND MERCURY.

By W. Bevan, A. M., M. R. C. S. I., and one of the attending Surgeons to St. Peter's Parochial Dispensary, Dublin.

Margaret Powlan, aged 41, servant, of a robust and healthy constitution, having run through the ordinary course of pregnancy, was, in the month of February 1823, admitted into the Dublin Lying-in Hospital, when, the labor being a protracted one, she was delivered, per force, of a dead child. Contrary to the consent of the attending physician, she went out prematurely, and returned immediately to her situation.

About seven or eight months after, being *enceinte*, she perceived that she was larger than usual under the circumstances, and that there existed an evident division between the upper and lower halves of the abdomen. Having gone her full time, she was delivered of a still-born child, and immediately after delivery observed that she was scarcely if at all reduced in size, which was considerable. Soon after this she again became pregnant, and in due time was safely delivered of a *living* child. Nothing, however, during this long period had been done for the extra swelling of the abdomen, which had become much larger, and continued to increase. A third time she became pregnant, and after the usual period was a second time delivered of a still-born child. This occurred four years after her first accouchement. As yet, also, nothing was done for the tumor, which continued to enlarge.

Unwilling to consent to the use of any remedy, and not imagining that she was dropsical, two years subsequent to this time, having ceased child-bearing, and having become very helpless, and being incapable of motion, she applied to a physician, who gave it as his opinion, that she really was dropsical, and that she must immediately be tapped. To this she consented, and the operation was accordingly performed in the presence of three attendants, when thirty-nine quarts of a limpid serum were drawn off. From that period to the present time she has been tapped once in each year, except the last, when it was performed thrice, in consequence, as is

usual, of the more rapid and frequent effusion of fluid. On an average, eighteen quarts of water were evacuated each time. In two instances none could be obtained.

In the beginning of January of the present year, the tumor having again increased much and rapidly, I was applied to, by her attending physician, to perform the operation, when we drew off fourteen quarts of a thickish serum. Much difficulty and resistance were experienced on introducing the trocar, the integuments being very dense, and the peritoneum feeling as hard as pasteboard. I did not succeed in drawing off all the water at this time; a third part still remained. A flannel roller being applied, and a portion of the *Decoct. Seminis Lini*. being directed to be taken daily (the urinary secretion having been sometime suspended), we left her.

Subsequently, on inquiring into the history of her case, I found that during the long period of ten years, her health had not materially suffered, that the uterus, the catamenia being always regular, the kidneys, and especially the liver, had performed their functions well. I, therefore, concluded that the disease had its seat and origin in the peritoneum, in consequence of latent inflammation, which conclusion its thickened and diseased state warranted me in drawing. With this view of the case, I directed her to use the following ointment:—

℞ Ung. Hydriod. Potassæ;

Hydrargri. Fortius Sing. ℥ss. Fricatus drachma mane nocteque abdom.

Three weeks after she had discontinued the use of the ointment, and finding that the swelling had rather diminished than increased, I determined on drawing off the remainder of the fluid, which I accordingly did, when thirteen quarts of a thickish brick-red-colored serum flowed out. I was much surprised to find the abdominal parietes this time quite relaxed and pliable. This enabled me to take away the last drop. Having applied a tight bandage, and directed her to remain at rest for some days, I desired that she should take exercise; since which she has resumed her natural dimensions, has returned to service, and continues to improve in health, and no disposition seems to exist at present to renew the disease, a period of five months having now elapsed.

On a review of this case I consider it to be interesting on two accounts. First, that during the unusual length of time in which this individual was dropsical, there was a total absence of symptoms of injury in the other organs, particularly the stomach; the menstrual flux also being singularly regular throughout. Secondly, the remarkably quick and rapid effect produced by the ointment. This I conceive was due to the hydriodate, its now well known power on the constitution of thinning and emaciating, being strikingly shown in this instance. But I think that it possesses, in addition, a much more valuable property, that of altering the diseased action of a part, which I consider was manifested in this case by the marked alteration in color of the fluid. This also occurred in a case of ovarian dropsy treated with iodine by Dr. Elliotson, and also by Dr. Thompson of London, who (though I was ignorant of the fact till I had consulted the journals) have used this substance as a remedy in this form of disease, often with success. Dr. E. in his lectures has given some useful and judicious directions on its use, and has, I think, observed that it is likely to prove a good and valuable remedy. Let me, however, add, that much caution and circumspection should be observed in using it, either internally or externally, as, both from its rapid effects, its action, and its decided tendency to engender an inflammatory state of the system, dangerous consequences may ensue. I would further remark, that when it is perceived in a case of dropsy that iodine has manifested its effects, the radical cure may be very much hastened by drawing off any remaining fluid,—probably the last time the operation will be necessary. The evil consequences arising from a lengthened use of the remedy may thus be obviated. Lastly, I would add, that I think iodine is materially assisted in its action by combining it with mercury.

Dublin, June, 1834.

SEVERE HEMORRHAGE FROM AN ULCER ON THE PENIS.

To the Editor of the Lancet.

SIR,—If the following case is worthy of insertion, you will, perhaps, give it a place. I am,
 Sir, your very obedient and humble servant,
 Southampton, June 13th, 1834.

FRANCIS COOPER.

CASE. — Coombs, about twenty years of age, sent for me to stop a bleeding which had taken place from the penis. He was a stout healthy young man, and had had hemorrhage several times for two or three days previous to my seeing him, but since this last occurrence he had become so completely exhausted as to be unable to stand. I examined the vessel on my arrival into which the blood had been received; it contained about two pounds or more of arterial fluid, and which only ceased to flow on the approach of fainting. A large clot filled up the lips of the prepuce, which was swollen and inflamed, and nearly closed over the glans by a phymosis.

He stated that he had lost a larger quantity of blood by the previous bleedings, and, judging from his appearance, I should say he certainly had sustained a considerable loss of that element, since he was blanched, and almost unable to move.

After drawing away the coagulum, I introduced the blade of a curved pair of scissors, and slit the prepuce as far as the margin of the glans, when, on reflecting its divided edges a large chancrous ulceration, comprehending a third of the corona and body of the glans, was exposed. After washing the parts, the nitrate of silver was freely applied, so as to act as an escharotic; a piece of dry lint was placed over the sore, and the penis was covered with rags dipped in cold water. By the next day the slough came away, and no hemorrhage ensued. The chancre then gradually healed, and the division in the integument can scarcely be seen. In this case, the patient himself would have it that he had lost six or eight pints of blood, but it is possible that four pints would be nearer the truth. At all events the quantity must have been large, and not far short, if at all, of the last mentioned amount.

In a recent number of the Lancet, a similar case is noticed by Mr. Wardrop in one of the lectures of that excellent and practical writer, but in his case Mr. Wardrop bled the patient from the arm, to induce syncope, a remedy which, under particular circumstances, may be resorted to. But with proper deference I would observe, that I conceive a free application of the nitrate of silver to be sufficient, almost under every circumstance, to arrest the hemorrhage unless the particular views of the practitioner favor the plea of additional bleeding, to prevent further ulceration, which I beg again to believe may be effectually prevented by cauterizing the wound freely with the above named substance. I do not like to see blood wasted, but, when necessary, let it be removed to any extent compatible with sound practice and the safety of the patient. If great inflammation be present, Mr. Wardrop's practice is judicious; but I would cauterize the wound as well. Wherever specific ulceration is going on, whether in the integument or cellular tissue, the nitrate of silver properly and judiciously applied is the best and often the only remedy.

LITHOTRITY.—We have been favored here with an operation of lithotrity by Mr. Costello. The patient, an old man, did not appear to suffer much. The tact with which Mr. Costello seized the stone was admirable; there was no *searching* for the *foreign body*, but the blades of the instrument (his own) appeared to be passed with the greatest possible facility under the calculus. A few strokes of the hammer announced the approximation of its blades, and the comminution of the stone. The sitting did not exceed five minutes. I confess I always had some prejudice against lithotrity, but candor compels me to admit, that that prejudice is removed. No man can reflect on the immense saving of suffering to the patient, and the danger as well, by lithotrity, without hailing it as one of those triumphs of human skill which occasionally take place for the relief of humanity, and as an elevation of our art above every contemporary science. There is little doubt but that the operation of cutting will, in a few years, be exceedingly rare; indeed, it occurs to me as being unjustifiable, except in peculiar cases, to cut at all, since lithotrity, in a majority of individuals requiring relief, seems to fulfill every indication; and although, like every discovery, it requires time for its general adoption, it is to be hoped that no operator will attempt a section of the bladder for the time to come,

until he has ascertained its necessity, and made himself acquainted with the respective merits of both modes, since nothing less than life is at stake in one, and only physical suffering in the other, a difference which is surely entitled to some consideration. However prejudiced and partial the lithotomist may be, I should like to see more humility and compassion in medical men at public operations. Is it necessary that every man *should satisfy himself* of the presence of stone, by rudely manipulating the sound, and forcing it against the sides of the bladder?—Do such men think that a poor creature has no feeling? If so, let them strip and place themselves on the table, and if they will allow me, I will soon convince them to the contrary.

ON THE USE OF THE PROTO-IODURET OF MERCURY IN THE VENEREAL AFFECTIONS
OF CHILDREN.

The following cases will serve to give an idea of the treatment pursued by M. Ricord :—

CASE 1.—Calmelle (Virginie) was received into the Hopital des Veneriens, Paris, on the 19th November, 1833. At the time of this child's birth her mother was free from any venereal symptom, having been cured a month before. At the age of two months the infant was afflicted with mucous papulæ on the vulva, on the upper and inner part of the thighs, round the anus, neck, and circumference of the mouth. During the first fifteen days her mother merely washed the parts with mallow water. On being received into the hospital, M. Ricord prescribed emollient baths, and a few days after, lint moistened in white-wash was applied to the vulva. On the 24th of November she commenced to take the pills of proto-ioduret of mercury. On the 29th the mucous papulæ had begun to lose color, and were pale; several of those on the labia had disappeared. On the 7th of December nothing remained on the face except a few brown spots: the skin here was supple and smooth. 10th. All marks of the disease have disappeared, with the exception of a few spots on the vulva. 14th. Convalescent. It is here right to notice one fact which M. Ricord has frequently observed in his wards; viz. that although the child's mouth was the seat of a great number of mucous papulæ in a state of ulceration, the mother's nipple was not affected in the slightest degree by the constant contact of the pus.

CASE 2.—Silon (Augustine), aged 18 months, received the 3d of February, 1834, a month after the birth of this child. The vulva, anus, and inner parts of the thighs, were covered by mucous papulæ, which continued for sixteen months. Mercurial frictions and applications were employed, but, instead of relieving, seemed to aggravate the disease. At the time of her entry into the hospital, the parts just mentioned were the seat of a large prominent patch of mucous papulæ, which appeared to be only divided by the natural folds of the skin. Baths and emollient cataplasms were prescribed for the first ten days, and then compresses, with white-wash, were applied; and on the 13th of February the proto-ioduret pills, with a sudorific tisan. The infant took a pill every fourth day. On the 28th the mucous patches had become pale, and presented very little elevation; they gradually disappeared after the fourteenth pill, and the patient was perfectly cured on the 20th of March.

CASE 3.—Lafosse (Vincent), aged two years, came in on the 7th of January, 1834. This child was in the habit of sleeping with his grandfather, who had been for a long time affected with chancres and ulcerations in the throat. In consequence of some infamous attempts the child became infected, and twenty days after, a syphilitic pustular eruption declared itself; the anus, scrotum, and thighs, presented numerous ulcerated papulæ. After twenty-five days' use of the pills this child was completely cured; the papulæ on the thighs first disappeared; then those on the scrotum, and, finally, those about the anus. The disease began to give way after the fourth pill had been taken.

The following is the formula for the pills employed by M. Ricord at the Venereal Hospital.

℞ Proto-iodur. Hydrarg. gr. 1-8;
Extract. Opii Gummas gr. 1-10;
Extract. Guaic. gr. j;
Thridac. gr. 1-2. Misce. Fiat pil. una.

After this we may gradually give 1-6, 1-4, or 1-2 a grain, according to the age.

THE
REGISTER AND LIBRARY
OF
MEDICAL AND CHIRURGICAL SCIENCE,
A MEDICAL NEWSPAPER,
EDITED
BY GRANVILLE SHARP PATTISON, M.D.
Prof. of Anat. in Jefferson Med. Col., Philada.
ASSISTED BY JAMES HAGAN, M. D., WASHINGTON.
PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 15, 1834.

No. 45.

Since we have entered on our editorial duties we have had numerous applications made to us to furnish the profession with a review of "*The Principles of Medicine, founded on the Structure of the Animal Organism. By Samuel Jackson, M.D., Assistant to the Professor of the Institutes and Practice of Medicine, and Clinical Medicine in the University of Pennsylvania,*" &c. &c. Occupying, as we do, a peculiar relation to the University of Pennsylvania, in which Dr. Jackson is a professor, we have been afraid that if we had expressed our opinion of his work, in the only terms we could have spoken of it, our readers might have suspected us of being actuated more with the desire to detract from the reputation of a rival professor, than to perform our duty as an editor. It is true, as is justly observed by the author of one of the reviews we are about to republish, that what is called "*severity of criticism consists in truth alone.*" To have convicted Dr. Jackson of "*bad writing,*" and of a "*very loose and inaccurate way of thinking,*" all we would require to have done, would have been to have published quotations from his own work; those faults being so palpable, that to prove them no commentary was required. We prefer, however, to furnish our readers with extracts taken from reviews of Dr. Jackson's "*Principles of Medicine,*" &c. written by gentlemen, the object of whose criticisms cannot be suspected. The reviewers had no desire to derogate from the reputation of the University of Pennsylvania; they have only felt desirous to put the younger members of the profession, and more especially medical students, on their guard, against mistaken fluency for eloquence, and bold and unsupported hypothesis for demonstrated physiological truth. We would ask any intelligent physician to read any *single* chapter of Dr. Jackson's "*Principles,*" &c. and then ask himself if he understands it. For our own parts, we confess, although we have labored to comprehend his meaning, we have in a majority of instances failed to do so; we are therefore constrained to believe that the author does not clearly understand himself. Vain and airy thoughts, appear to be floating in his mind, but, his attempts to give them birth, although attended with the most convulsive efforts, are abortive. His ideas, like phantasmagoric pictures, float in an atmosphere of mist. They are unsubstantial, and "*like the baseless fabric of a vision,*" they illude every effort of the most patient research to render them intelligible to the understanding.

If Dr. Jackson's "*Principles of Medicine,*" &c. be, as we are told, a mere transcript of his Lectures, it becomes the sacred duty of every gentleman connected with the medical periodical press to expose the faults of his style, and the crudeness of his physiological opinions. With the view of doing so we have republished below a large part of an excellent essay on *Medical Language and Literature*, copied from the Boston "*Monthly Medical Magazine,*" a

most valuable journal, conducted by Drs. Pierson, Flint, and E. Bartlett, and an extract from a Review of Dr. Jackson's "*Principles*," &c. which appeared in "*The Transylvania Journal of Medicine and the associate Sciences*," a periodical which is conducted with much ability.

Our object in publishing extracts from both journals is, because in the Boston Review the author confines his criticisms chiefly to the faults of Dr. Jackson's style, whilst the Transylvania critic directs his attention principally to the errors in his physiology.

To enable our readers to distinguish the two Reviews, the Boston one is printed in leaded type, and the extracts taken from the Transylvania Journal in a close one.

It will be observed that the Boston Reviewer does not confine his criticisms to Dr. Jackson's work. The faults of Dr. Geddings of Baltimore's style are likewise exposed.

REVIEWS.

A Treatise on Pathology and Therapeutics. By John Esten Cooke, M.D.; Professor of the Theory and Practice of Medicine in Transylvania University.

Human Physiology, illustrated by numerous Engravings. By Robley Dunglison, M.D.; Professor of Physiology, Pathology, &c. in the University of Virginia, (now of Maryland,) Member of the American Philosophical Society, &c.

Physiologico-Pathological Observations on Follicular Gastro-Enteritis. By E. Geddings, M.D.; Professor of Anatomy and Physiology in the University of Maryland, &c.—Baltimore Medical and Surgical Journal and Review.

The Principles of Medicine, founded on the Structure and Functions of the Animal Organism. By Samuel Jackson M.D.; Assistant to the Professor of the Institutes and Practice of Medicine, and Clinical Medicine, in the University of Pennsylvania, &c., &c.

It is not our intention to inquire very earnestly how far the adage, that "words are things," may be true. The inquest, like many others that theorists indulge in, might be more curious than useful. It is sufficient for our present purpose to know, that the sentiment thus expressed is so far true, as to render language an instrument of great power, for evil as well as good, and therefore of great importance.

Words skillfully selected and arranged, form the drapery of our thoughts, as pieces of cloth and other fabrics fastened together, according to their shape and fitness, furnish clothing to our persons. If, then, to secure to the latter every attainable degree of usefulness and elegance, constitutes no inconsiderable portion of the business of civilized man, the claim of the former to some share in the concerns of life will scarcely be denied. And if, again, a few leading manufacturers and artists, who might produce articles of dress, defective alike in tasteful and sound qualities, and attempt to give them fashion and currency, would be deemed reprehensible, and would lose their influence, and perhaps their business, ought not a similar fate to await those, who may be guilty of similar abuses, in relation to language? Does not each fault call alike for a prompt and vigorous effort to correct it, and avert the mischief it must necessarily occasion? And should not all persons, qualified to do so, co-operate actively in the measure themselves, or give countenance and encouragement to those who do? To these questions, a negative reply is hardly to be expected. The reason of their being proposed, will appear hereafter.

We know that it is neither common, nor, in most cases, necessary for reviewers to dwell, to any great extent, on the style and manner of scientific and professional writings. We even admit that, in general, the practice would be improper. The reason is plain. The object of the authors of such works is to instruct, not to please or amuse. They address themselves to the understanding and judgment of their readers, not to their taste or fancy. Their subjects, moreover, are so interesting and important, in themselves, as to require no ornament to render them acceptable to the lovers of knowledge. Provided, therefore, they have correct views of the department of literature, to which their productions belong, their language is plain, simple, and unpretending, free alike from decoration, and all other marks of ambitious effort.

Attentive only to matter, arrangement, and soundness of principle, they rarely attempt to dazzle or strike, by any studied form of expression. True, they are peculiarly circumspect in their phraseology; but they select their words, on account of the precision and fitness of their meaning, rather than for their elegance and learnedness, or for the harmony and agreeableness of their sound. In a particular manner, they never make choice of them, on account of their length, novelty, or marked peculiarity. Such qualities act on them as reasons to reject, rather than to adopt. Modest as well as uniform in their phraseology, they exclude from their composition, with equal care, the *verba sesquipedalia*, and the *purpurei panni* of the poet and satirist. The qualities of style, which such writers are chiefly solicitous to attain, and which are most useful and becoming in them, are brevity, purity, precision, and perspicuity; to which, if they can add strength, they are satisfied, leaving verbal pomp and glitter to writers in other departments of literature. They have no ambition to be accounted *eloquent*, so far as that term may be construed, as it too generally is, into a lavish effusion of high sounding words, often employed without a due regard to their meaning. On the style and manner of such authors, studied criticism would be out of place. A passing notice of them, commendatory, or otherwise, according to merit, is all that is admissible.

But when, as occasionally happens, cases not only different but opposite occur, different measures should be adopted to meet them. When professional and scientific writers, forgetful of the department of letters in which they are engaged, or not having a correct knowledge of what specially belongs to it, express themselves in language altogether unsuitable; when, instead of a style pure, precise, and simple, perspicuous and unaffected, they indulge in one possessing none of these qualities, but those of a contrary character—one that is involved, without precision or accuracy, obscure, ambitious, encumbered with a redundance of unusual and far-fetched words, and deformed and vitiated by pompous epithets and foreign modes of expression—when faults like these, already abundant, threaten to become more so, criticism on style should be no longer restrained, but permitted, and openly encouraged to condemn. Its silence, under such circumstances, would be a neglect of duty. Literature when so deeply diseased, needs a remedy; and whether the treatment required be lenitive or severe, it should be faithfully administered. If venerable senators or reverend divines, so far forget what is due to their rank and calling as to play harlequin in dress, or appear publicly in caps and bells, they must lay their accounts to be censured by the grave, laughed at by the merry, and mocked by the satirical. In like manner, if writers, who profess to give instruction in science, whether professional or general, instead of using sober and dignified language, corresponding to their subject and their own pretensions, not only clothe their thoughts in the style of the novelist or the romancer, but form or adopt a mongrel dialect, calculated to corrupt and unsettle their native tongue, they ought not to be suffered to escape unrebuked. And if, at the same time, those writers stand in the capacity of teachers of youth, the case derives from that circumstance much additional strength: the evil is the greater, and calls the more pressingly for a vigorous corrective.

The foregoing remarks, the correctness of which will scarcely be questioned, though general in their character, are particular in their bearing and immediate cause. They have been elicited by the faultiness of the styles of two of the works, whose titles constitute the heading of this article. We allude to those of Professor Geddings and Dr. Jackson. The styles of the other two, are intended to be used as standards of comparison; and though they differ widely from one another, each is exceedingly good of its kind. That we may not be suspected of injustice or partiality in our award of either censure or praise, we shall lay before our readers such extracts from the productions to be examined and compared, as may enable them to form their own opinions.

We have said that the style of scientific and professional writings admits of no ornament, but should be simple and concise, unaffected and perspicuous. In illustration of this, and to exemplify the strictness of its conformity to the rule, we give the following extract from Professor Cooke's "Treatise on Pathology and Therapeutics." The passages are not selected,

because they are in any way superior to others, the style of the book being remarkably uniform. Nor does it concern us, at present, whether the sentiments expressed in them are correct or otherwise, our attention being directed exclusively to the language.

“1. Mankind have ever shown a strong inclination to discover the causes of natural phenomena; and from the remotest ages their ingenuity has been exercised in the investigation of them. This propensity is not confined to the intelligent, and the enlightened; even the stupid and the ignorant have their desire to know, and their theories to explain the secrets of nature.

“2. The inquiry into the origin and nature of the various forms of disease which afflict the human race, is especially interesting; seeing that the natural propensity is stimulated by the importance of the subject to our well-being, and to life itself. Physicians who are continually called on to relieve the afflicted, are especially interested in ascertaining the causes of the morbid appearances, and particularly the proximate cause, “*quæ presens morbum facit, sublata tollit, mutata mutat.*”

“3. They have accordingly shown, from the earliest times of which we have any record, the deep interest they feel in the subject. By their unwearied attention, and by a multitude of observations, they had early made considerable discoveries respecting those causes which remotely influence the body in such a manner that disease is eventually produced; they had marked the phenomena that occur, and had laid down with very considerable precision, those which indicate a favorable or an unfavorable termination; and they had acquired a knowledge of many articles, vegetable and mineral, of great efficacy in the treatment of diseases.”—Vol. i. pp. 9, 10.

Words more simple, familiar and natural, expressions more correct and definite, and a general style and manner more concise, perspicuous, and unaffected, than this extract exhibits, can scarcely be imagined. Nor can any thing be better suited to the object in view—the conveyance of elementary instruction, in terms not to be misunderstood. We do not call the style elegant; nor was elegance the writer’s aim. But we do call it chaste, classical and pleasing. No composition is more suitably characterized, by the phrase “*simplex munditus.*” There is not perhaps a word in it, to which any thing short of hypercriticism can except; and it would be difficult to improve a single expression, to make it, in a special manner, more definite and intelligible. The language, moreover, as well as the manner in which it is used, is pure English. Though not inclined to pronounce the writing perfect, we are equally unwilling to say that it is faulty, or to show how it may be improved. One thing is certain, scholars of taste and judgment will be the last to censure it. If any condemn it, the reason must be looked for, not in it, but in themselves. An important advantage of such a style in books of science, is that the language never so far occupies the mind of the reader, by any of its qualities, as to abstract his attention from the substance of the work. It neither dazzles by its brilliancy, perplexes by its intricacy, blinds by its obscurity, nor deceives by its ambiguity. Like a perfectly transparent and unrefracting body, it gives a free and direct passage to every ray of light that falls on it; or rather, like a faithful mirror, it exhibits a correct image of the matter it represents. Might we resort to another figure, without committing ourselves the fault we are blaming in others, we would further say, that the fruit it is designed to present, is neither concealed nor damaged by a superabundance of leaves. No man, in writing, forgets himself more entirely, fastens on his subjects more closely and exclusively, or more earnestly endeavors to develop it, and exhibit it in its greatest simplicity, than Professor Cooke. To the truth of these remarks, his composition amply testifies.

The style of Professor Dunglison is materially different—more elaborate, somewhat more stately; less concise, and perhaps we may add, of a higher polish. Still, it is, in general, easy and simple, perspicuous and unaffected. Though it is the studied production of a scholar, that scholar, in composing and finishing it, did not either forget or neglect the maxim, “*artis est celare artem.*” The following passages will serve as a specimen of the whole work.

“Having studied the mode, in which air is received into, and expelled from the lungs, we have now to inquire into the changes produced on the venous blood—containing the products

of the various absorptions—in the lungs, as well as on the air itself. These changes constitute the function of sanguification, hæmatosis, respiration, properly so called, arterialization of the blood, æration,” &c.—Vol. ii. p. 94.

Though we did not select this paragraph, on account of any faultiness in its style, but took it, because it first presented itself, when the volume was opened, we have perceived, in transcribing it, one expression of doubtful accuracy, which a sentiment of justice induces us to notice.

“These changes” (“on the venous blood,” and “on the air”) says the Professor, “constitute the function,” &c. Is it correct to say that the “changes” here referred to, or indeed any changes, “constitute a function?” Are they not the effects of a function, rather than the elements which compose it? The function here alluded to, consists in a specific form of vital organic action, of which the changes on the blood and the air, are the product. The tendency of our author’s language is to identify cause and effect; a principle which no one will advocate. Nor do we deem it correct, to represent “sanguification” and “respiration,” as the same function. Far from it. They are not even performed by the same organ. “Respiration,” which consist in the admission and ejection of air, is the result of muscular action, enlarging and diminishing the cavity of the thorax, and of the elasticity or springiness of the atmosphere, by which it tends to the filling up of a vacuum. The excitement of the muscles to action excepted, the whole process is mechanical. But “sanguification” arises from a far different cause. The muscles of respiration have no immediate agency in producing it. It is the product of the action of the lungs on the venous blood and the atmospherical air that enter them. We say “the action of the lungs,” not merely the action of the air on the blood, an hypothesis for which many contend. Did the atmosphere and the blood come in contact, in any other place but the lungs, “arterialization” would not be effected. That “respiration” and “arterialization” are not the same, appears conclusively from the lividness that marks cholera, the rigor of intermitting fever, and other forms of congestive disease. In these complaints, the hue of the skin is altered, because, owing to the deranged condition of the lungs, the blood is not arterialized, though respiration continues. Respiration is indeed essential to sanguification. But so is it to every other function of the body, because it is essential to life itself, the source of them all. It is not, however, identified with every other function. Again respiration can be carried on, for a short time, in an atmosphere where there is no oxygen; but in that case the blood is not arterialized. Facts of notoriety justify us in adding, that, as far as the atmosphere is concerned, respiration and arterialization depend on different qualities; the former on a mechanical quality, the latter on one supposed by most physiologists to be chemical. But to proceed with our extract.

“With the ancients, this process [respiration] was but little understood. It was generally believed to act as a means of cooling the body; and, in modern times, Helvetius revived the notion, attributing to it the office of refrigerating the blood, heated by its passage through the long and narrow channels of the circulation, by the cool air constantly received into the lungs. The reasons that led to this opinion were:—that the air, which enters the lungs in a cool state, issues warm, and that the pulmonary veins, which convey the blood from the lungs, are of less dimension than the pulmonary artery which conveys it to them. From this it was concluded that the blood, during its progress through the lungs, must lose somewhat of its volume, or be condensed by refrigeration. The warmth of the expired air can, however, be readily accounted for; while it is not true, that the pulmonary veins are smaller than the pulmonary artery. The reverse is, indeed, the fact; and it is equally obvious, that the doctrine of Helvetius does not explain how we can exist in a temperature superior to our own; this ought, on his hypothesis, to be impracticable.”—*Ibid.*

“Another theory, which prevailed for some time, was:—that, during inspiration, the vessels of the lungs were unfolded, as it were; and that thus the passage of the blood from the right side of the heart to the left, through the lungs, is facilitated. Its progress was, indeed, conceived to be impossible during expiration, in consequence of the considerable flexures of the

pulmonary vessels. The discovery of the circulation of the blood gave rise to this theory ; and Haller attaches considerable importance to it, when taken in connexion with the changes effected upon the blood in the vessels. It is inaccurate, however, to suppose that the circulation of the blood is interrupted, when respiration is arrested."—Vol. ii. pp. 94, 95.

The style of these extracts will be blamed, if at all, only by the censorious, and those who are not friendly to the writer. Though more obnoxious to criticism than that of Professor Cooke, it is, notwithstanding, the style of science, and is creditable to the scholarship and taste of its author. It is sound English, both in language and manner, and bears no marks of a misplaced and injudicious ambition to dazzle readers, instead of instructing them. The writer shows, that his mind is much more occupied with his subject, than with himself. Hence, he makes it his study, to present to his readers sound and valuable matter, rather than rare words, and startling conceits. As he aims at nothing beyond his reach, the march of his composition is calm and dignified, and its tone well sustained. It is marked by neither the struggle and bluster of over-exertion, nor the vacillation of fatigue. While it has a sufficiency of youthful freshness and elasticity, it has also the steadiness of confirmed strength. In style and manner, no less than in matter and thought, we repeat, that the work is creditable to its author, as well as to the medical literature of our country.

It would be gratifying to us to feel justified in bestowing equal commendation on the style and manner of the two productions we have yet to notice. But the reader will too soon perceive, that this is impossible, consistently with correctness of taste, and honesty of purpose.

The very title of Professor Geddings' paper is highly objectionable. "Physiologico-Pathological Observations on Follicular Gastro-Enteritis !" This is an actual burlesque on English, not to call it a caricature of language ! Did we not know the Professor to be in earnest, and were not his effort throughout a serious one, we should be compelled to believe his intention to be, to travesty the heading of some article, or the title of some book, which he thought ridiculous. In bombast of words, neither "Terrible Tractoration," nor "Homer Burlesqued," has any thing comparable to the passage just quoted. And, compared with it, Swift's intentionally ludicrous title prefixed to the "Tale of a Tub," "A Physico-mythological Dissertation on the different Sorts of Oratorical Machines," is modest English. No matter who coined the individual words of the heading, our author, by adopting them, and linking them together, has made them his own, and rendered himself accountable for their genuineness and currency. And the hazard of their being condemned as counterfeits, is fearfully against him, or we mistake the taste and judgment of the profession. The simplicity and purity of our mother tongue, should not be suffered to be sported with and violated, without necessity or usefulness. And, in the present case, there is neither. Professor Geddings could have expressed easily, and much more intelligibly in the customary language of medicine, every idea contained in his heading. And that he might have done it, in a manner far more creditable to his taste as a scholar, and his judgment as a philosopher and a man, cannot be denied. The phrase, steeped as it is in the very essence of affectation, can be intended for nothing else than a mere ostentatious parade of learning. Had the words *ad captandum* been prefixed to it, they would not have rendered the design of it more obvious and certain, than it is without them. But the end aimed at by it will not be attained. Its failure is certain. None will be caught by it, but the youthful, the illiterate, and the injudicious. Men of an opposite cast will toss it from them, as very little better than the slang of charlatanry. And thus may the benefit that might be derived from perusing the article it is prefixed to, be lost. We had no sooner read it, than we had a vivid recollection of the title bestowed by a celebrated empiric on one of his stomachics :—"A mucilaginous decoction, to soothe the acid particles, and eliminate the acrimonious corpuscles, that corrode and gnaw the internal coats of the stomach !" Had the Pseudo-Æsculapian, instead of the "corroding and gnawing of the internal coats of the stomach," spoken of the "production of a pathological condition of the nutritive function, localized in the gastro-enteric dermoid tissue," his jargon would have been complete. The reader will perceive, as we pass along, our reasons for suggesting this improvement in diction.

We regret to add, that, though certainly not in all places so bad, the style of the production we are examining, is, in general, too much of the same character with that of the foregoing quotation. There is, in almost every page, especially where any discussion that may "make a show" is attempted, an effort at a mode of expression by far too tumid and pompous for the occasion. Incongruous and badly sustained tropes and figures, moreover, and other gaudy rhetorical flourishes, are occasionally introduced, where the language should be plain, and the manner didactic. The writer does not seem to know, or, knowing, does not remember, that all such decorations are the work of feeling and passion, not of the understanding or the judgment. His most prevalent fault, however, (and it occurs in almost every paragraph,) is a redundancy of words,—not of common ones, but often of the longest, most compound, and farthest-fetched, that our language affords, and such as writers of taste never employ, except of necessity, or for some other cogent reason. Yet there is cause to believe, that our author searches for them, with as much of eagerness to incorporate them in his composition, as classical writers use of care to exclude them. An extract or two from the paper before us, will prove the justness of these remarks.

"All fevers, therefore, adopting the ordinary definitions of the nosologists."—"Definitions," in this place, is an improper word, and does not convey our author's meaning. His allusion, if we at all comprehend him, is to the names, not the "definitions," used by nosologists. But those two words are far from being synonymes. By the term "fevers," nosologists do not intend to define any thing, but merely to give a name to certain forms of disease. The words paralysis, tetanus, epilepsy and influenza, are not designed as "definitions" of the diseases, which are thus denominated. They are used as names, and nothing more. Of most other complaints, the same is true. This is only one out of many instances we could adduce, where the Professor is exceedingly unfortunate in his use of familiar and important words. But looseness and inaccuracy in the employment of language have but one source,—a corresponding looseness and inaccuracy of thought.) To proceed.

"All fevers, therefore, adopting the ordinary definitions of nosologists, are the result of the superexcitation of one or more of the tissues or organs, and as such superexcitation, when once developed, immediately impresses upon the part in which it occurs, all the molecular modifications which constitute inflammation, they may, without much impropriety, be said to be the result or consequence of local phlegmasia. All the other conditions which occur antecedent to the development and localization of the superexcitation in an organ, which possesses sufficient influence over the others to give rise to the outward manifestations, the assemblage of which form what is called a fever, are mere preludes, or a prodromos of the disease itself." * * * * * "Whether the local superexcitement be the primary or secondary condition, it is the point to which our attention must be directed—it is the focus upon which the whole force of the disease concentrates itself, and from which its influence is radiated throughout the organs and systems, disturbing their functions, implicating their structures, and, if not controlled, eventuating in their destruction!"—*Baltimore Medical & Surgical Journal & Rev.*, No. I. p. 72.

Added to some bad grammar, the scholar will not fail to perceive, that the diction of the whole of this extract is overstrained and inflated. It is the product of a dashing effort at what, in a spirit of derision, has been called magniloquence. In giving vent to the thoughts it contains, the writer must have been in an agony of desire and exertion to strike and surprise. Like the novelist or the dramatist, his object was to produce effect, rather than to convince or inform.

In page 74, a short paragraph ends thus: "It certainly must be considered bad philosophy, (an expression wholly misapplied,) to close our eyes against such evidence (previously given)—to regard the lesions as merely accidental, and instead of ascribing the symptoms to them, to refer them to some inscrutable, incomprehensible condition of the vital powers, shut out from our cognizance, and veiled from our reason." Another trap for admiration—unskillfully set, and badly baited—a leaning toward the bathos! The author proceeds:

“This is precisely what takes place in epidemic cholera. Of its prodromos we cannot, as hinted above, know any thing, until we can determine and analyze its cause, (we know just as much of it as we do of the beginning of other epidemic or endemic complaints,) “ascertain the character of the first impression it makes upon the living organization; the points upon which this impression impinges,” (an impression impinge!) “and the order of its propagation through the mazes of the animal economy. Of its effects, however, we can judge, so soon as they become manifested through the disturbance of the different functions. They then assume a tangible form; become cognizable by our senses, and he who is conversant with the healthy laws of the organism, cannot be at a loss to appreciate their character, and translate them into a known and intelligible language. When an individual has been brought under the influence of this cause, whatever may be its essence, the first visible phenomena developed by it are such as appertain properly and peculiarly to superexcitation and inflammation of the gastro-intestinal mucous surfaces. Its effects localize themselves upon that tissue.” &c.—pp. 74-5.

It is not easy to conceive of more palpable violations of the rules of composition, or of wider departures from the usages of good writers, than are found in these extracts. Nor is the style of thinking any better. It is exceedingly crude and unsatisfactory—destitute especially of precision and method. Compared with good writing, the passages resemble the scattering fire of raw militia-men, contrasted with the platoon work of disciplined troops. In truth, the composition is wanting alike in literature and logic. Once more.

Our author goes on, interlarding his composition very abundantly, with the following singular forms of expression: “Tenderness or supersensitiveness of the muscles and articulations”—“general malaise of the locomotive apparatus”—“physiologico-pathological modifications of the organism”—“a state of hyperæmia”—“irradiation of irritation, or superexcitement from the tissue or organ upon which it is first localized”—“the whole aggregate phenomena of what may be properly called the prodromons of the disease”—“sympathetic superexcitement of the buccal and lingual mucous membrane”—producing “a deposition of plastic lymph upon its surface;” with dozens of others, equally tumid, tasteless, and affected, and not a few of them, to us, unintelligible.

These quotations need no comment from us. They are a comment on themselves; and, as such, they have that within them, which speaks with a force, far beyond what criticism could exert. Certainly no language of ours could equal it. When a literary performance pronounces on itself the verdict of “guilty,” it is the confession of the culprit, that he is justly arraigned. Where conscience testifies, the evidence is conclusive, and the decision final.—To the extracts, therefore, we refer, for matter in proof of the truth of our strictures.

Is any one ready to observe, that Professor Geddings, being a young man, our censure is too severe? The charge would be unjust. “I must,” said Hamlet, speaking of his conduct towards his mother; “I must be *cruel*, only to be kind.” If we have been severe on the Professor, it is *because* he is young, and can *easily improve*. His bad habits, as a writer, are not yet so stubborn that they will not bend, nor so deep-rooted, that they cannot be plucked up—at least, we presume so. And, having improved himself, by correcting his faults, of which we have but endeavored to render him sensible, we hope he has yet many years to live, to do credit to himself, service to his profession, and honor to his country. Were he “an old man, four-score, and upwards,” to criticise his writings would avail but little. He would be past, not only the period of reform, but also that of doing, by his writings either good or harm.—But, being young, a popular teacher, and the editor of a journal, a spacious field is open to him; and the issue of his labors in it, will depend not a little on the style, in which he may communicate knowledge, whether orally or in writing. These are the grounds, on which we have ventured to admonish him gravely of his false taste; and of the injustice and injury he is doing by the indulgence of it, to himself, no less than to the literature of his profession; nor, as respects their correctness are we unwilling to trust the decision, to his own calm and unbiassed judgment. Dispassionately he cannot blame us now; and, should he live but a single lustre (and we trust he will live many), he will yet thank us for what we have done—else we

are greatly mistaken in the estimate we have formed of him. His paper contains no small amount of useful matter ; but its value is greatly diminished, by the faultiness of its style.

Respecting what is called the severity of criticism, we have yet another remark to offer.— It consists in truth alone. In false criticism there is no severity, except as relates to its author. Every unfounded censure he passes, recoils on himself. He must prove the justness of every fault he imputes, by extracts from the work he animadverts on, else he stands self-condemned. But the testimony borne against an author, by his own work, cannot, as an element of a *critique* on that work, be too severe ; or if it be, the author alone is culpable, for testifying so strongly against himself. He who makes the extracts, and proves, by them, the truth of his strictures, is free from blame. In truth, it is not to be denied, that the only real severity a critic can practise on an author, is by quotations from his works. By this rule we are willing to be judged, on the present occasion. If the extracts made, sustain our critical remarks, we are not blamable ; if they do not, we are. If Professor Geddings has written so faultily, that the verdict passed, by his paper on itself, is, “ guilty,” the severity of the decision is his own not ours. We but report his verdict to our readers. On these grounds we await, without dread, the judgment of the public. And for what we may have yet to say, in this article, we place our responsibility on the same foundation.

From Dr. Jackson’s “ Principles of Medicine,” a modern Zoilus might gather, with but little labor, an abundant harvest. There are many single pages of it, that might satisfy his cupidity, and few that would not copiously minister to it. As relates to style, the work is but little else than an incorporation of faults. Viewed as the production of a man, in the maturity of intellectual life, who has been a writer for many years, and by some thought an able one, it is a composition well calculated to excite surprise. It contains, in a singular state of mixture and confusion, almost every element of bad writing, not excepting a very loose and inaccurate way of thinking, which is indeed the chief source of all the others. For, as are the tenor and character of thought, so will be those of expression, the latter being only the representative of the former.

The Doctor’s style, to say nothing of its involved condition, or of its ambiguousness and obscurity, is one of the most redundant we have ever examined. It groans under the weight of pleonasm and tautology. It possesses also what may be called a reduplicated texture, to an extent, that, within our knowledge has no parallel. The author, we mean, reiterates his ideas, under different forms of expression, more frequently, and in a more unwarrantable degree, than any other writer we could name. This would seem to arise from one of two causes ; an unbridled desire to show his command of words, or a consciousness that he has expressed himself defectively, on the first and second attempts, and a desire to remedy the failure, on the third and fourth ones. For he often reduplicates three times, and four, we think, occasionally. His style again is, in many instances, ambitious and inflated, in a degree rarely equalled, the conceptions being far too aspiring for the subject, and the words to express them long, pompous, and uncommon. His fancy, moreover, often takes wing, and flies off with his judgment. Nor are his flights, though wild and devious, either graceful or majestic. They exhibit nothing to delight, and but little to amuse. We wonder much that they continue to be indulged ; and that some degree of good taste and common sense, in the author, does not suppress them ; or that his friends do not influence him to that effect. In no other way could they show him more kindness, or confer on him a greater favor. To shield a man of sensibility from the sting of ridicule, is sometimes more desirable in itself, and more worthy of gratitude, than to protect him from bodily harm. We shall only add our confident belief, that, so inordinate is the Doctor’s waste of words, that his volume, containing about 650 pages, might be reduced to 400, or less, of the same size, and in the same type, without the rejection of a single idea. A few extracts will show, that these remarks are neither unfounded, nor extravagant. On opening the book, without any design as to subject or place, we quote from the page that first presents itself:—

CHAPTER IV.

“On the Function of Circulation, or the Distribution and Movement of the Blood or Sanguine Nutritive Humor.” p. 455.

Such is the heading of the chapter; and we doubt whether the English language contains a sentence (except perhaps in the volume before us) more redundant in words. It would be difficult to compose one more so, without rendering it more unintelligible. We ask the reader to pause on it, count the number of words wasted in it, and then judge for himself. He will find the whole number to be seventeen; and a moment's reflection will show him, that the idea communicated by them, may be expressed much more clearly, and in better taste, by six: *On the Circulation of the Blood.* Or, *Of the Circulation of the Blood*, which we like better.—This substituted heading would have been used by Haller, Cullen, Hunter, and Rush, and indeed by all writers, who prefer matter and thought to verbosity and sound. It is, moreover, so simple and perspicuous, that no one can mistake its meaning; while the meaning of our author's heading is so buried in words, that it is labor to find it. The contrast between them reminds us of an event that occurred, in a professional meeting of two physicians, perfectly known to us, one of them plain, but keen and sagacious, the other vain, pompous, and empty.

The latter being in attendance on a child, whose case was threatening, the former was called into consultation with him. Of the remedies agreed on, one was, that the patient's feet and legs should be bathed in warm salt water,—wiped dry, and briskly rubbed with a warm towel. The verbose gentleman being the family physician, the office of announcing the treatment was his. In the performance of it, he addressed the following harangue to the infant's mother.

“Madam, your physicians, after mature deliberation and advisement, think proper to prescribe and direct, that you prepare and make ready a tepid aqueous saline solution, immerse your babe's inferior extremities in it, and then freeing them from humidity, apply friction to them with a heated napkin.”

“Yes, Doctor,” replied the distressed lady, “but how am I to do this?”

The other physician, perceiving that his colleague had overshot his mark, simply replied;

“My dear Madam, take a little warm salt and water in a piggin, put your child's feet and legs into it, and then wipe them, and rub them well, with a dry warm towel.”—“O! Yes, Doctor,” said she, “it shall be done immediately.” So much for the heading of CHAP. IV.—The following is its first paragraph.

“The preparation of the blood or sanguine nutritive humor, constituted of the nutritive elements furnished by the aliment, and the humors of the venous and lymphatic absorption, is completed in the lungs, by the function of respiration. The fluid thus prepared, is adapted for the maintenance of vital phenomena, the nutrition of the organs, and the secretions. But it requires to be distributed, for these purposes, to the various organs composing the animal organism, which is accomplished by the function of the circulation, through the medium of the vascular system.”—*Ibid.*

Another scrap of composition, as periphrastical, inflated, and involved (not to add ambiguous and obscure) as a superabundance of badly chosen words, thrown together without either taste, skill, or judgment can render it! To be prepared to make a fair estimate of the unfitness of the work we are examining, it must be borne in mind that it is elementary—prepared expressly for pupils commencing the study of medicine. But what pupil, green in his studies, can comprehend the meaning of such phrases, as “the nutritive humor, constituted of the nutritive elements furnished by the aliment”—or “the humors of venous and lymphatic absorption?” Not one; until he shall have been first initiated into the mysteries of Dr. Jackson's phraseology; on which the writings of other physicians throw but little light, and which no medical lexicon, that we have seen, is prepared to teach. It is difficult, moreover, to say, which is most exceptionable, in our author's style, its affectedness, or its tautology. Professing himself to be a scholar, and often assuming the air and pretension of a very learned one, it is hardly less than astonishing, that he should, without any necessity, use the following

awkward tautological expressions, in three successive lines—"nutrition of the organs"—and "the various organs of the organism." Turning to

"SEC. IV." of the same chapter, we find the following heading "Pathological or Abnormal State of the Circulation," which, in plain English, means, deranged circulation—irregular circulation—or morbid or diseased circulation—and nothing more, either of which phrases is much more intelligible and scholarlike, and in all respects, better, than the tumid, periphrastical one of our author, who appears to have forgotten or conceived a rooted dislike of, the words morbid, deranged, regular, irregular, natural, and healthy. As substitutes for them, therefore, he employs, (because, perhaps, being more novel and sonorous, they are better suited to pompous diction and fashionable eloquence) the terms pathological abnormal, normal, physiological, and a few others of a similar stamp. Instead of our plain, old-fashioned morbid condition of any part of the body, we have now, a "pathological or an abnormal state of a tissue or an organ"—and, instead of a regular, natural, or healthy condition of a function, we are now told of a "physiological or normal excitation of it. Instead again of having, as we once had, in one part of the body a condition corresponding or harmonizing with the condition of another part of it, we have now, one "organ or tissue of the organism in relation with another,"—a "purple patch" of affected, frenchified phraseology, deforming and corrupting our language, by marring its simplicity, and altering its meaning! For it should not be forgotten, that the French word "relation" and the English word "relation" differ in their signification. These are but a few of the new fangled forms of technical expressions, dictated we suppose in Paris, which seems to be, to our author, what Mecca is to the pilgrims of the Faithful. Such outlandish gibberish is shameful—equally so with outlandish mustaches, costumes, and airs—and the professional dandies, who import, adopt, or, in any way, encourage them, should be cured of their folly, by the lash of the critic. They are the Della Cruscan in medicine, and deserve the extirminating scourge of a Gifford. We like good French very well, in its proper place, and often resort to it, with pleasure and profit; but we have no notion of bartering our mother tongue, for a mongrel dialect, neither French nor English. That would be a stretch of courtesy, toward things from abroad, to which our home-bred taste, and unforeignized Americanism cannot submit. We go for the "American System," in language, leaving to Statesmen, financiers, and political economists, to settle the question about banks and manufacturers, as they may—But, to proceed.

Opening our author's book at page 600, our eyes are almost blinded, and our ears stunned, by a volcano of fume and words, in full blast, which convey to us little else than smoke and ashes, accompanied by a babel of confusion and noise. We give to the reader the whole concern, "alone in its glory," hoping that he may decipher it and derive edification from it though we cannot.

"When the organic action of an organ, from the abstraction of its normal stimulants, excessive congestion of its tissues, or from any other cause, or enfeebled, or reduced in activeness or power, the production of its vital force, its irritability, its sensibility, its nervous activity, all depending on the organic actions for their production, decline; its vital phenomena are diminished; it ceases to radiate its accustomed nervous stimulation or vibrations to the nervous centres, and thence into the organization; and a sedation, diminution of the vital movements or organic actions, an asthenia follows as a necessary consequence, in the whole circle of organs in its connexion, and frequently in the whole organism. This may even reach an extent terminating in death."

In its kind, this ebullition may be pronounced perfect—a specimen of balderdash, as rank and unqualified as writer ever penned, or reader perused. From beginning to end, the paragraph has not one good quality of style, and almost every imaginable bad one. To suffer such unmeaning verbosity to pass current under the name of science and eloquence, and even to praise it, (for the book has been praised) is a blot on the literature of our country. No wonder that European tourists scoff at us, as an unlettered, tasteless, and unrefined people! While we tolerate and encourage such jargon as this, their jeers can hardly be considered misapplied. And

the following ejection of words, on page 601, is not much better. It is a caricature painting of an apparent but deceptive case of convalescence.

“The delusion soon vanishes—a sentiment of inward failing is perceived, it rapidly becomes a feeling of extreme exhaustion, a fainting debility seizes on every organ, the surface is algid and pallid, a cold and clammy sweat breaks from every pore, the respiration is hurried and feeble, the mind wanders, the senses are obscured, the efforts of the muscles are tremulous and without force—life is escaping from every avenue, and where, but a few minutes before, was the animation and brightness of hope, is now spread the darkness of despair.”

What a mortifying contrast is here displayed, between vehemence of effort and baldness of performance! and between poverty of conception and exuberance of words! In such phrases moreover, as “sweat breaking from every pore”—“life escaping from every avenue”—and “the brightness of hope” being succeed by “the darkness of despair”—in these expressions, we say, intended no doubt to be highly descriptive and impressive, as well as very pathetic, there is a triteness, and common-place vapidness, denoting in their author any thing but a fertile and vigorous mind.

Once more. In page 604 we are told, that, in a certain described condition of the system, “the organs remote from the seat of the irritative movements, are robbed of the proportion of the sanguine element necessary to their healthful constitution, and that then, an exhaustion, a debilitation, a sedation of their vital activity ensues—hemostasis from deficient power is induced, and the functions either languish in extreme feebleness, or they are entirely annulled. This condition often occurs, and frequently with a frightful and uncontrollable rapidity, when highly vital organs, rich in the capillary angeial tissue, and abounding with the sanguine element, are assailed with violent perturbing impressions.”

“From the sublime to the ridiculous,” said Napoleon, “is but a single step.”

“He roar’d so loud, and look’d so wondrous grim,
His very shadow durst not follow him,”

said somebody else. And we say, that a more bloated sample of the bathos, than these two or three extracts furnish, has rarely issued from the travail of an overburdened brain. It clearly shows, that the pretension was far beyond the just claim, and the struggle equally beyond the strength of the writer. Hence the unseemly floundering and tottering, that every where mark the ricketty product. As already intimated, there is an imbecility of thought, and a poverty of invention in it, which no bluster of manner can make amends for, nor any accumulation of high-sounding and out-of-the-way words conceal. Its violations of grammar, though sufficiently striking, are lost amidst the mass of its weightier faults.

We do not say, that the entire volume we are examining is as unscholarlike, in style, as the few paragraphs we have quoted. In an assertion to that extent, facts would not sustain us. But we do say, that a large portion of it is nearly so; and in that we are sustained by the best of testimony—the book itself. Nor do we hesitate to add, that we have been unable to find a well written page in it, from the first to the last. The entire composition, taken as an aggregate, is, to say the least of it, of an ordinary cast. Even when not so bombastic, affected, or overcrowded with ill-chosen words, it is loose and unfinished—totally wanting in belles-lettres character.

Scientific and professional, as the work purports to be, we would not have thought of preferring these charges against it, had not its author, in composing it, attempted to play the fine writer and the man of eloquence, and to erect a new standard in the use of language. Nor, even in that case, would we have deemed it necessary to animadvert on its style, however faulty it might have been, had we not apprehended that the example set in it might become contagious, and, among young physicians, vitiate the medical writings of our country; or, if not of the whole country, of that portion of it where the author is known to possess no ordinary amount of popularity and influence; we mean, more especially, among the pupils of the school in which he lectures. Were Dr. Jackson a common member of the profession, we

would leave his book to pass silently into that oblivion which awaits inevitably all such productions. But, industrious and energetic as he is, fluent in conversation, courteous in manners, and aided by the post he holds, and the popularity he has acquired, it would be singular if his writings were not to operate, with considerable power, for *good* or for *evil*, according to their character. Believing, therefore, that their style is calculated exclusively for the *latter* effect, and that the mischief done by it may be extensive, as well as durable, we have deemed it our duty to endeavor to counteract its tendency, by giving a free but fair analysis of it. To represent its qualities, *as they are*, is all we think necessary for the end we have in view. And, as we have said in substance in another place, if there be any real severity in our remarks, it will be found to consist *in their truth*. Unfounded strictures could only rebound, in mischief, on ourselves.

Nor is there wanting another reason, which has had a little weight with us on the present occasion. Our author has required some name and standing abroad, as well as at home. It is even said that he is considered, especially in Paris,—the head-quarters of the medical sect to which he belongs,—to be an aspiring leader, destined, perhaps, to form a new school in the profession, and give a new caste to medical literature in the United States. Persuaded that an event of this kind, as respects Broussaism *entire*, of which he is an advocate, were it possible for it to occur, would be highly injurious to American medicine, and far from creditable to those who cultivate it, as a science; and further persuaded, that it is but little complimentary to the Faculty of the United States, for even a suspicion of the sort to be entertained in foreign countries—from these considerations, we have thought it right at least, if not absolutely necessary, that a public protest should be entered against both the probability and propriety of the event, which the suspicion prospectively embraces. And others having overlooked or neglected the duty, we have ventured on its performance ourselves. Whatever the compass of his desires, or the scope of his ambition may be, Dr. Jackson is not of a character to revolutionize either medical literature or practice. He wants the extent and power of mind, as well as the steady perseverance and consistency, essential to such an achievement. His notions are too light, and his views too narrow and mutable, to suit the purposes of a revolutionist, or a reformer. Grasping, intellectually, nothing that is great, and ballasted in his mental movements, by nothing that is weighty, he is much more likely to *be* changed, than to *change*—to *receive* caste, than to *communicate* it. In plain terms, he is an imitator and a follower, and rarely continues long under the banner of the same leader, without finding fault with him, and perhaps so far seceding, as to endeavor to form, on the same general principles, a party of his own. Enamored of variety, no sooner does a new theory reach him than it becomes his favorite, until it be superseded by another. Of this mutability in him, there is abundant proof. His Broussaism* is not now what it was a few years ago. Nor is this all. A solidist in some of his speculations, he is *virtually* a humoralist in others. His perpetual veering in opinion, reminds us, at times, of the poet Zimri, who,

“In the course of one revolving moon,
Was poet, fidler, statesman and buffoon.”

In but one thing is he exclusive, and perfectly himself—his style of writing. *There*, he as yet stands alone. In all other respects he is made up of *communicated*, and mostly *foreign* matter. Were every bird to resume its own plumage his covering would be scanty. The reason of all this is plain. He wants originality and invention. His views, therefore, are necessarily second-handed. His industry and capacity to *acquire* have given him a large stock of informa-

* The Doctor ought to know, and possibly does, that Broussaism, in Paris, is becoming obsolete. True, some of its tenets are sound; but, as a system, its days are numbered. The opinions of Andral, Louis, and others, are now on the ascendant; those of Broussais rapidly on the decline. Such parts, moreover, of his system as are destined, from their soundness, to stand the test of time, are not his, but were familiar, at least to some physicians, before his name was known as a writer. Like all other innovators, of an intrepid spirit and a burning imagination, he has pushed some of his views so far beyond the boundary of facts, as to render them as baseless as the doctrines of homœopathy, to which recent letters from Paris inform us they are now likened.

tion, as his Principles of Medicine evince. And much of his matter is valuable. But he lacks judgment to select from among it the true elements of science, talents to arrange and combine them and deduce from them correct inferences, and taste to clothe them in suitable language. He has no sound views of the fitness of style and manner to subject and design. With him, language has no peculiar affinities. He does not seem to know, that philosophy, history, oratory, and poetry, have each its appropriate caste and tone of expression! and, that a form of phraseology suitable and elegant in one of these departments of literature, is unfit for either of the others, and in some of them ludicrous. The language of poetry in works of science, is like the fanciful costume of sixteen, bedecking the witheredness and decrepitude of four-score. It is meretricious ornament. And a neglect, or an inability to discriminate on this and other points of fitness and taste, or a reprehensible disregard of them, is a fruitful source of our author's faults. On every topic, gay or grave, trivial or important, the form and tone of his composition are nearly the same. His manner is periphrastic and strained, and his language redundant, pompous, and gaudy. Worse still; besides being inaccurate and loose, his style is frequently ambiguous and obscure. Were we to add, that it is occasionally unintelligible, passages in his book are not wanting to sustain us in the remark.

Were any of Dr. Jackson's friends, who take an interest in his advancement and permanent standing, as an author, to ask us, what are the causes of the faultiness of his style? our reply would be brief. They appear to be, a degree of ambition in him disproportioned to his ability to gratify it, united to a want of judgment and taste. The former makes him aim at things beyond his reach, and the latter disqualifies him to decide on fitnesses. Hence arise the pomposity and affectedness of his style—a means injudiciously selected by him, to enhance his reputation, as a writer. Hence, also, his frequent use of unaccustomed words, as well as of customary ones under strange meanings, and his ostentatious foreignisms, to make a show of great familiarity with countries and their literature, which he has never visited. Had he spent years in Paris, there would be some apology for his being a little *Parisionized*. Yet even then the taint would be discreditable to him. The motto of every enlightened and judicious traveler is, *Non animum mores ne mutant, qui trans mare current*. Men should travel, not to abandon or change the mind and manners of their country, but to improve them. Dr. Jackson, however, having never visited a foreign land, we hold him without excuse, for attempting to vitiate his native tongue, by a foreign dialect. Nor do we hazard any thing, in assuring him, that he will never gain renown, or, in any way, benefit himself, by the enterprise. On the contrary, his reputation, as a writer has already suffered by it, and unless he relinquish it, will be ultimately ruined. Does he, from any motive, discredit our prediction? Let him persist in writing, as he now does, and mortifying experience will convince him that we are right. His own pupils of judgment and taste will cease to be his followers, and none but the feeble and shallow-minded will give him the incense of praise.

There is yet, as already suggested, another, and perhaps a more stubborn reason, for our author's indefinite, loose, and reduplicated style. He is not a definite and lucid thinker. His ideas, especially those of the *higher classes of relation*, are neither well defined, clear, nor accurately arranged. It is not possible, therefore, that they can be accurately and perspicuously communicated by him in words. The converse of this is equally true. A clear and regular thinker never fails to be a clear and regular writer and speaker—provided he has a free command of words. And, in that, our author is far from being deficient, as his superabundant employment of them sufficiently proves. Having once expressed an idea, he appears dissatisfied with what he has done, as if apprehensive that he has not acquitted himself well, or that he is not perhaps fully understood. Hence he repeats the idea in different words; and, being still dissatisfied, he reiterates it, in a third form, and, at times, even in a fourth, without, in either attempt, or perhaps in all of them, improving on the first. And thus is the reader, blinded and bewildered, rather than enlightened, by so many dim and defective views, left in doubt as to the writer's meaning. The remedy for all this is plain. Let the author, we say again, be perfectly clear in his perceptions and thoughts, before committing them to paper, and he will

be equally so in his expression of them. His first effort to communicate will be so satisfactory, that a second will be needless. But no man can operate to good effect, with either body or mind, under twilight or darkness. Intellectual day is as essential to the finish and perfection of mental products, as physical day is to those of material ones. Can a painter represent an object faithfully on canvas, or a sculptor in marble, without a clear and accurate perception of it? No, certainly. But writing is only painting or sculpturing in words. Hence an author can neither represent clearly and definitely the image in his mind, unless his view of it be full and perfect. This is one of the fundamental laws of writing well. We respectfully commend it therefore to the attention of our author.

Once more. We are told that those who humble themselves shall be exalted. And the maxim is susceptible of an extensive application. Nor is Dr. Jackson beyond its reach. To rise to solid and lasting character, as a writer, he must fall in his pretensions and claims. They will not be allowed by an enlightened community. *Aut Cæsar aut nihil* is not his rightful motto; and an attempted usurpation of it, (for, as an American, he has made the attempt,) has but exposed the emptiness of his title to a legend so ambitious. While he follows, almost servilely, his leaders abroad, he must not flatter himself that he can lead at home. A chief in medicine, like a chief in war, must have resources in himself. He must be an original. And, to originality of mind, as already mentioned, our author is a stranger. Juvenile in all respects, as his composition is, he is fitted only to lead young men, who, when strengthened by maturity, and instructed by experience, will desert his standard. This prediction, also, time will verify.

For the sake of all concerned, we sincerely hope that some of the Doctor's friends, possessing judgment and taste, will prevail on him so far to lower his literary pretension, as to be content with the highest grade of authorship for which nature has intended him,—a third or fourth rate American writer. There he will be at home. But his aspiring to the first rank, is like an infant grasping at the moon, or a bird of feeble wing attempting to move in the path of the eagle. As respects style, we have but a single remark to add. We ask our readers to forget or disregard all we have said on the subject, and then carefully examine and compare with each other, the extracts we have made, from the four works at the head of this article, and exercise their own taste and judgment on them. By such a measure, not only will an enlightened and discriminating public be most correctly informed, as to the matters at issue, but we, as we feel persuaded, will most certainly escape all suspicion of undue partiality, on one hand, or expressive severity on the other.

In many of our author's opinions respecting the fluids—chyle and lymph, blood and the secreted humors—we cannot concur. We think him by far too much of a humoralist for the present period; certainly he is too much so for us. His sentiment, as expressed in the following passage, we deem extraordinary.

“That putridity does actually occur in the blood during life, is a most questionable circumstance, and has not yet been demonstrated.” p. 92.

No, truly; the actual “putridity” of “the blood during life,” has *not* been “demonstrated.” Nor is the matter in the slightest degree “questionable.” And we are much surprised at its being pronounced so, by a teacher of physiology, of the nineteenth century. “Actual putridity of the blood,” and life still in existence!—As soon shall it continue to exist after decapitation. That the blood is often greatly deteriorated, during life, in consequence of the morbid condition of the blood-making solids, is certain; and it is equally so, that it putrefies much sooner after death from some diseases, than from others. But, that it ever putrefies in the blood-vessels *before death*, is not true. Putridity and vitality are the antipodes of each other; conditions of matter diametrically opposite, as every phenomenon belonging to them shows. There is a repugnance between them, which nothing can reconcile. As soon shall two solid bodies occupy at once the same point of space, as they coexist in the same portion of matter. There is reason to believe, that the vital principle, whatever it may be, is the most potent antiseptic in nature. It holds a marked supremacy over the putrefactive process, not only preventing it, but extinguishing it in food, when it has already commenced. All this could be proved, had we leisure for the discussion.

Some of our author's remarks on the urine, (pp. 96–7,) we deem erroneous and unfortunate. They are inordinately humoral, and savor too much of the spirit of certain empirics, who, instead of examining the patient, to ascertain his disease and prescribe for it, depend, for their information, on an examination of a vial of his urine, sent to them frequently many hundreds

of miles! Had the Doctor published his views on this point in the seventeenth century, instead of the nineteenth, we think they would have been much more in accordance with the time. We do not deny that the urine is altered by disease. On the contrary, we acknowledge that it is very greatly altered. But we do deny that, in the present state of medicine, either Dr. Jackson, or any other person, can deduce, from "the precipitates," and other "principles that are to be detected in this secretion (the urine,) in disease, inferences of great value, in establishing the pathology of disease." Yet the Doctor asserts dogmatically that this may be done. The lines here quoted are his, and may be read in his book, p. 97. We regret to add, that, in this, as in many other instances, he has given us notions for realities, and has ventured, in assertion, far beyond the warranty of fact. That the urine indicates something, with respect to the condition of the urinary organs, and the liver, is true. Yet it is far from giving, in every case, full and precise information, even in relation to the former, with which it is so immediately connected. How then can it be an index to the "pathology"—the seat and character—of diseases in other and remote parts of the system? What light it may throw on "pathology" hereafter, when the laws of the animal economy, and the phenomena it exhibits, in health and disease, shall be better understood than they are now, we have not the foreknowledge to predict. But, at present, the soundest and most enlightened practitioners are admonished, by experience, to place but little reliance on it. Precepts and declarations to the contrary of this, are the product of fancy, rather than of judgment. We venture to say that the bile is a fluid of infinitely more consequence to the physician, in his professional business, than the urine; and that the liver gives twenty-fold more information respecting the character and treatment of diseases, than the kidneys. In fine, we feel not a doubt but the issue will prove that the experiments and inquiries, which many are now pursuing, with respect to the condition of the fluids in disease, and which our author seems to favor, are much more curious, as points of knowledge, than useful, as grounds of practice. The fluids are the immediate products of the solids. If the latter be in a good condition, therefore, the former cannot be in a bad one; because, as is the fountain, so must be the stream. But all disease begins in the solids, and can be cured only by remedies addressed to them, and impressions made on them. If they be kept in a sound state, the fluids will continue sound; and if, when diseased, they be restored to soundness, they will soon bring the fluids to the same condition. To this we confidently believe there is no exception. Certainly the reverse has never been demonstrated, nor rendered even probable. A belief in the vitiation of the blood or other fluids, by the poison of disease, previously to its onset on the solids, is but a notion in pathology, without a fact to sustain it. And a reliance on the medication of the blood to cure disease, is no better. As well may remedies be applied to the fruit, to remove a defect from the tree that bears it. The result of the injection of saline fluids into the veins, in the treatment of cholera, testifies strongly to this effect. Patients are said to have been revived for a time by the practice, but never cured. If they recovered, it was from the influence of other remedies. The reason is obvious. Cholera is not a disease of the heart and blood-vessels. Why then address medicinal substances immediately to them, to cure it?—Such practice is only prescribing for a symptom—a course which true medical science forbids. Warm salt and water injected into the blood-vessels, in cholera, when the pulse has failed, re-excites the heart to action by its mere warmth, more, perhaps, than by any other quality. We think it probable that warm water alone, or perhaps with a little wine or alcohol in it, would be equally efficacious in restoring the pulse, and would sustain it as long. This we offer only as an opinion, without knowing whether any experiments, either to verify or refute it, have ever been made. In like manner, external warmth, vigorously and perseveringly applied in cholera, when the skin is cold, produces action, and an increase of temperature in that organ. But in neither case does the impression reach the seat of the complaint. In neither, therefore, is the effect permanent. The sympathies of the system are suppressed or extinguished, and hence the impression cannot be conveyed from one organ to another.

The hypothesis that cholera arises from a deficiency of serum in the blood, which the saline fluid injected is intended to remedy, is too visionary to deserve any notice. Nor is that which ascribes the unusual thickness, and the dark color of the blood to the discharge of its serous portion by the bowels, any better. In the worst cases of the complaint, which often terminate in death very suddenly, with little or no discharge from the bowels, the blood is as dark and thick as in those where the liquid evacuations have been the most abundant. There is reason to believe that the vital principle of the blood contributes much to its fluidity and florid color; and that the loss of that principle renders it grumous and dark. The arterial blood is more highly vital than the venous; and it is also thinner, and of a brighter scarlet. In youth, the blood is more liquid and florid, than in old age; and it can scarcely be doubted that it is also possessed of more vitality. The blood is likewise thickened and darkened by stagnation, because it thereby loses its principle of life. We are inclined to believe that the condition of the blood in cholera can be best explained on the same ground. In extreme cases of that complaint, the vitality of the whole system is nearly extinguished. The blood, therefore, possesses

(Concluded in No. 46.)

THE
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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, OCTOBER 22, 1834.

No. 46.

REVIEW.

(Concluded from No. 45.)

but little of it. It is all deeply venous, because the lungs are not in a condition to arterialize it, and give it life. Hence its dark color and grumous character. But it should never be forgotten that the disease neither commences in the blood, nor has its seat there; nor can any medication of that fluid ever remove it. The truth is, that cholera is seated essentially in the solids—chiefly, we apprehend, in the abdominal viscera and the ganglionic nerves—and no remedy which does not act powerfully on them, will succeed in curing it. And, as relates to other complaints, we repeat our conviction, that they all begin and have their permanent seat in the solids. To search either for disease itself, therefore, for the evidences of its seat and character, or for indications how to treat it, in the blood, the urine, or any other fluid belonging to the system, appears to us inconsistent alike with sound pathology and enlightened practice. Although this inquiry was advocated and pursued in former times, by physicians who stood at the head of their profession, we are much mistaken if most of its retainers and advocates now, do not occupy a humbler station. We say again, however, that, of all the fluids, the bile indicates most clearly and certainly, somewhat of the seat and character of disease; but it does not shed light on every disease.

From p. 99, to p. 114, our author treats of what he calls, we know not why, “Organic Force;” and by way of interpretation, “Irritability.” This is his mode of proceeding in hundreds of instances. He first uses an unintelligible expression—or one intelligible only to himself, and then explains it—perhaps to show his ingenuity of learning. He has erudite for himself, and every-day ones for his readers.

His discussion of “Irritability” may be suffered to pass without comment. There is nothing in it worthy of praise; because all it contains substantial and useful, may be found elsewhere; and we shall never censure, except where there is something calculated to do mischief.—One of the strongest features of these pages, is one which pervades the entire work. They are too ambitious, both in matter and manner. There is a constant struggle in them to do something great. Hence much more is aimed at than achieved.

In the next section, beginning at p. 114, and ending at p. 120, our author discourses of what he calls “Organic, or Vital Affinity.” In this discussion much is said, in a manner sufficiently confident and unqualified; but, as far as we are concerned, to very little purpose.—We have toiled and puzzled ourselves without mercy, to get at the meaning of the disquisition, and learnt nothing for our pains—except a few names and notions. Lest we should commit some mistake, in attempting to expound “Organic, or Vital Affinity” to the reader, we shall give the writer’s exposition of it, in his own words.

“In speaking of the vital properties, it was mentioned that irritability, or the aptitude, or susceptibility of organized matter to receive the impression of excitants, was the principal, and by some, is regarded as the only vital property. With the results of this property we are familiar; they are, obvious to our perceptions; its manifestations can be studied, and its facts reduced to general formulæ or laws. There exists, however, another that merits equally the term vital, and like irritability, is common to all organic matter. Its phenomena are, however, obscure; it has attracted as yet but little attention, and its facts are but imperfectly understood

This property is, notwithstanding, connected with every vital action; it is the essential and immediate agent of nutrition and the secretions; it maintains organized or living matter in its state of composition; enables it to react against, or resist the influences that tend to its destruction, and opposes the exercises of the laws of common affinity or general chemistry, which resume their sway on its cessation. This property has the strongest analogy to chemical affinity, and may be termed organic or vital affinity. It may, in its nature or essence, be the same as chemical affinity, but is modified by the remote or first cause of life, and operates under different laws." p. 114-15.

In stating that what he denominates "Vital Affinity," has heretofore "attracted but little attention," our author assumes to himself more originality, than he is entitled to. His plain meaning is, that, though others have been inattentive to it, he has not. Now we venture to say that this assumption is incorrect. Under the name of "vital attraction," the "attraction of life," "of vitality," or some other, the power alluded to has been long and much attended to and spoken of, and often applied to the solution of phenomena, not explicable without it.—Indeed the recognition of a property of the kind is essential in physiology; and therefore every enlightened physiologist virtually if not avowedly makes it. But every one does not, like Dr. Jackson, attempt to tell what the power is. On the contrary, all modestly acknowledge that they do not know. In an especial manner, every one does not believe it to be, "in its nature or essence, the same as chemical affinity." And we trust it will be long before such a sentiment will generally prevail—before man will be regarded as a mere chemical automaton. For such is the august station, which the Doctor's chemico-vital hypothesis confers on him.

But we must present the reader with another extract of a still more extraordinary cast. In that we are about to give, although our author disavows the intention of making man an "electro-galvanic" or chemical apparatus, he does so, in fact. But the reader will judge for himself.

"The immediate or proximate agent by which the effects of organic affinity are operated, is not certainly known. Many circumstances render it very probable that it may be electro-galvanic energy or influence. This force is the active agent of chemical affinity, and its opposite state of positive and negative in the molecules or atoms of inorganic matter, produces the innumerable and immensely diversified forms it assumes, and phenomena it presents.

"In the production of the organic phenomena from the principles we have laid down, it may be presumed, that this principle is also the immediate or proximate agent of organic affinity, acting in conformity to the laws of vital energy or organic force, and displaying definite effects as it is brought into a specific mode of action in every definite specific structure.

"That the electro-galvanic power is the immediate agent or proximate cause of most, if not all the nutritive or reproductive and secretory phenomena, may be inferred from the following considerations.

"1st. It is the universal agent in all the atomic or molecular changes in inorganic matter, and the productive cause of all the phenomena connected with its various forms.

"2d. Organic matter is the same in its nature as inorganic, differing only in form and proportions; and in the organic, reproductive, and secretory functions, all the actions are molecular or atomic; and hence it is reasonable to conclude, that the same force is the immediate agent or proximate cause of the molecular or atomic actions of matter in all its forms, organized and inorganic.

"3d. The compositions and decompositions resulting from the electro-galvanic force, are analagous to those that are observed to occur in the organic actions of secretions.

"4th. That all the atomic changes accomplished by the electro-galvanic force, or active power, are accompanied with development of heat; and the organic or nutritive, and the secretory actions are, in a natural and healthy state, attended with the elimination of low degrees of caloric producing animal heat. Spontaneous combustion, of which so many examples are on record, has every appearance of being an intense, electro-galvanic action, in a system highly charged with inflammable materials, (hydrogen, carbon, nitrogen,) producing a rapid combination with oxygen, and which, as in all other circumstances, is attended with disengagement of light and heat, and decomposition or change of form.

"5th. In the organism of the higher animals there exist electro-motive apparatus, excellent electric conductors, insulators, and excitors. Thus muscular contraction is excited by completing an electric circle composed of muscle and nerve. The nerves are among the best conductors of the electric power; and in some animals, as the gymnotus and torpedo, &c. a complete electric organ composed of nervous matter, and insulating, or non-conducting plates is provided, and which excites powerful electric shocks.

"6th. The electro-galvanic power is found to supply the absence of nervous influence in some functions, that are suspended by the division of the nerves, as digestion and respiration, when the par vagum is divided. It is also the exciter of muscular contractions when directed through a nerve, in a manner analagous to the nervous influence itself.

"Lastly. By direct experiment the fluids of the organism are shown to be electric in a uniform state and degree in health. That of the blood is positive; in inflammatory diseases its

electricity diminishes, and is always lower when the inflammatory buff forms on blood.”—p. 116-18.

This extract contains so many dogmas (for there is too much positiveness in the whole of it) which we deem exceptionable, that it is impossible for us to comment, at sufficient length, on the whole of them, unless we should write a book, instead of an article for a periodical work. We shall therefore but briefly notice a few of them.

“This force (the electro-galvanic) is the active agent of chemical affinity, and its opposite state (states) of positive and negative in the molecules or atoms of inorganic matter, produces (produce) the innumerable and immensely diversified forms it assumes, and phenomena it presents.”

Who knows all this? or who, but Dr. Jackson, has roundly asserted it? We recollect no one. That Sir Humphrey Davy—we believe he was its author—proposed it as a hypothesis, is true; and other chemists, of inferior rank, have concurred in the conjecture. But who has proved it, by experiment?—None, whose writings we have read, or of whom we have heard. Yet chemistry is a science exclusively experimental. No chemist therefore is warranted to overleap the bourne of experiment, plunge into conjecture, and call his notions truth or philosophy—or palm them on the public as such. A writer detected in a course so disingenuous forfeits his standing, and is no longer credited.

Every body now knows, that the substances, which unite with each other by chemical affinity, such as acids and alkalies, and oxygen and combustibles, are attracted to the opposite poles of the galvanic battery. But who has expounded the phenomenon? Who has proved to us, that those substances unite with each other chemically, forming a compound different from both, because one of them is an electric and the other a non-electric? Do they unite more readily after they have visited the opposite poles of the battery than they did before?—Or has the battery any connexion with their union? No, certainly. Is it not as probable—perhaps more so—that their disposition to unite is owing to some property or properties inherent in themselves, rather than to borrowed ones? And that their possession of these properties is the reason why they are attracted to the opposite poles of the battery? Our object, in these remarks, is not to prove that Dr. Jackson has positively fallen into error. That we cannot do; because we are not in possession of what we know to be truth on the subject we are considering. And we must be acquainted with what is true, before we can expose what is not so.—Our only design is, to show that the Doctor receives and communicates, as certain, that which is doubtful, and asserts, as fact, what has not been proved—in plainer terms, that he gives us dogmatism, instead of reason, and notions instead of demonstrations. That he has some show of analogy in his favor, we do not deny. But analogy is legitimately used only for illustration; not for proof. It furnishes fine materials for oratory and poetry; but is quite out of place in philosophy and logic. Even though it should be hereafter proved that Dr. Jackson is right in his conjecture, we would retract nothing we have here said. He is wrong in asserting as true, in an elementary work, that on which doubt and uncertainty rest.

But we give the Doctor his dogma. Chemical affinity is the product of the “electro-galvanic principle.” What then?—Does it follow that “Vital Affinity”—that power which first forms blood out of aliment and drink, and then so changes, unites, and arranges the constituent elements of that fluid, as to produce by them all the tissues of the body, and all the secreted fluids—does it follow that that power or principle is also the “electro-galvanic?”—the same which forms neutral salts out of acids and alkalies, oxides out of oxygen and metals, and the chloride of mercury out of chlorine and quicksilver?—The question is too ludicrous to deserve a serious answer. And yet our author openly adopts the hypothesis involved in it. Let that hypothesis be followed out, through all its ramifications, and the result will be more wild and extravagant, than any hopes that alchymists have indulged, or any visions which astrologers have cherished. It will pronounce the brain, which Dr. Jackson recognizes as the organ of the intellect, to be nothing but a curious galvanic battery! One flourish of galvanism will then produce love, another hatred, a third hope, a fourth fear, a fifth seeing, a sixth hearing, a seventh benevolence, and an eighth reason, until every mental feeling and faculty shall be brought into action, by the same principle, which produces the combustion of gun-powder, and forms Glauber’s salts!! The recitations of Homer and Pindar, and the orations of Demosthenes and Cicero, were therefore nothing but well conducted galvanic explosions; and the brains of Chatham, Henry and Pinckney, only such sort of apparatus—a little better made—as a chemist can now construct out of zinc and copper!!—So pro-di-gi-ous of late has been the “march of intellect!” Nor is this all—perhaps not the worst. Putrefaction, which resolves organized matter into its primitive elements, and vital action, which had formed it out of them, are identified in their origin and operative principle! He who can believe all this—and our author’s hypothesis involves it all, and much more no less repulsive to reason and science—is proof against absurdity—or rather absurdity has rendered him proof against every thing else.

But, says the Doctor, to produce all these wonderful effects, “the immediate or proximate agent of organic affinity must act in conformity to the laws of vital energy or organic force, and display definite effects as it is brought into a specific mode of action in every definite specific

structure." Indeed!—Now though the especial meaning of this sentence, if it has any, is far beyond our comprehension, we understand it as an admission, that vitality or rather vital action is but a modified sort of chemistry, or galvanism, as the case may be—not a real one. And if this admission be made, it demolishes the whole previous concern, unsays all that has been said anteriorly, or that can be said subsequently on the same ground, and gives the writer's castle-in-the-air to the wind. If chemical affinity be compelled, in any case, to "act in conformity to the laws of vital energy," or to any laws other than chemical ones, it has changed its nature, and is chemical affinity no longer. Suppose polarity to be compelled to "act in conformity to the laws of" gravity; would it still continue to be polarity? Certainly it would not. It is now called polarity, because it acts toward the pole. Change its direction, by gravity, towards the centre, and it will then be centrality. Give it a direction midway between the two points, and it may be called polo-centrality (which would be equally as good as "electro-galvanic;") or it must be christened by some other newfangled name. Vital action then is either a genuine chemical process, or it is no chemical process at all. There is no half-way truth on the subject. Nature makes no such mixtures of incongruous things. She leaves all inconsistencies of the kind to the imagination of man. Chemico-vital processes and products are creations of the fancy. Centaurs and chimeras are not more so. Nature forms no monsters, in her general and orderly operations. To say that digestion, secretion, or any other vital function, is a chemical process in which chemical affinity is controlled and modified by the vital principle, or by our author's "vital energy," is to speak unintelligibly, if not to talk nonsense. It is making words a cover for the want of that knowledge, which the speaker wishes the hearer, or the writer the reader, to believe he possesses. In simpler and plainer terms, it is to set up a false pretension to science. In whatever process the vital principle controls and directs, that process is itself vital; precisely as the control of the mechanical principles, in the movement of a water-mill, makes the process mechanical; and the control of chemical ones in dying, makes the process chemical. This is common sense. And any thing in contravention of it is groundless hypothesis.

But the most extraordinary clause in the preceding extract remains to be noticed. Here it is.

"The compositions and decompositions resulting from the electro-galvanic force, are analogous to those that are observed to occur in the organic actions and secretions."

"Analogous" means bearing resemblance or being similar to. In what instance then, or in what respect, we ask, do "the compositions and decompositions resulting from the electro-galvanic force" resemble those that occur in any sort of "organic action," or in any of the secretions"? To be more particular, and bring the matter from general and vague assertion, interrogation, or denial, to a tangible point. What sort of "electro-galvanic composition and decomposition" bears any resemblance to the process of "organic action" which forms bile, secretes urine, or produces the rudiments of the embryo in the ovary? What "electro-galvanic" process presents the least similitude even to that by which serum, perspirable matter, and others of the simpler secretions are formed? To descend to the vegetable kingdom, whose action is also organic. What "electro-galvanic" form of action has any shadow of resemblance to that which produces the rose out of earth, water and air, or the beautiful and fragrant epidendrum ærium out of the contents of the atmosphere alone? To rise again to animal nature; in what respect do any of Dr. Jackson's "electro-galvanic" processes resemble that, by which beef, bread, butter, and milk, or other forms of aliment and drink are so changed, assimilated, and applied, as to constitute the substance of those who swallow them? Before we can subscribe to the Doctor's creed, we must receive satisfactory answers to these questions, and many others of a similar character. We apprehend therefore that our conversion to the faith is hopeless.

Another portion of the extract and we are done with it.

"In the organism of the higher animals there exist electro-motive apparatus, excellent electric conductors, insulators, and excitors. Thus muscular contraction is excited by completing an electric circle composed of muscle and nerve,"—In simpler and more intelligible language, man is an electrical machine!—for such is the plain English of this paragraph. And the assertion is made by the writer in the most unqualified manner. The position is not stated as a matter of probability, but of fact—Is it so?—What physiologist will hazard his reputation, by answering yes, especially as relates to that clause of the extract, which represents "muscular contraction" (entire of course) as the product of "an electric circle composed of muscle and nerve"? We verily believe that Dr. Jackson himself, if pressed on the subject, by one well versed in medical philosophy, would decline giving a decisive answer; or he would answer, no. This portion of the extract excites in us a lively recollection of an assertion made by an American writer, in a chemical work, published we think, nearly thirty years ago—certainly upwards of twenty. The statement is, that the time was approaching, when, by arranging some given sort of matter, in some given way (neither the way nor the matter however, we believe, was specified), and passing an electric spark through it, a chemist would be able to "crystalize a man"!!!—The predicted time has not yet arrived. Can our author tell us how

distant it is?—The following additional extracts prove that he is as entire a believer in the chemical nature of man, as the writer to whom we have referred.

“Nutrition is, then, a chemical process, regulated by chemical laws, and effected by chemical agency”—“Chemical actions belong to matter in all its forms, whether mineral, vegetable, or animal; and all the changes in the elemental composition of bodies, whether mineral, vegetable, or animal, are the result of chemical actions.” p. 514.

Now generation is but a “change in the elemental composition of bodies.” According to our author’s creed then, it is a chemical process. But he again asserts, (p. 547) that “secretion is analagous to nutrition, belongs to the same order of phenomena, and is the result of precisely similar actions or movements.” Hence, in generation, nutrition, and secretion, and every other process, where there is a “change in elemental composition”—and this is the case in every fundamental process of the human body—man is a chemical apparatus! We appeal to every reader of discernment, whether these notions are not as extravagant, wild, and foreign from common sense, as the chemical dream already alluded to, of “crystalizing a man”!!

To conclude on this point. “Vital chemistry,” as it is termed, is pushed by many writers, especially by our author, to such an extent, as, not only to propagate deep and mischievous error, but to throw a shade of ridicule on medicine. We do not know a fitter subject for caricature or farce, than a bevy of electro-galvano chemico-physiologists, “armed all in proof” with fitting apparatus, and vying with each other, to imitate the functions of the human body—one in an agony of travail to bring forth chyme out of pork and potatoes, another to secrete bile, a third to make urine, a fourth to build up a brain, a fifth to construct lungs, and a sixth to perpetuate generation, and thus beget the whole man! And we doubt not that some wit will yet try his genius in an effort of the kind—the sooner the better. Perhaps ridicule may suppress what is proof against reason.

Our author’s discussion of what he terms the “Functions of Relation” extends from p. 127 to p. 176. Of this we shall only say, that it is very elaborate and in many places difficult to be understood. Though there is nothing original in it, it contains a sufficient amount of useful matter to indemnify the reader for a perusal of it.

Next comes a very long chapter on the “Intellectual and Moral Faculties.” It begins on p. 177, and terminates on page 260. The writer has bestowed considerable labor on it, and shows himself in the course of it to be a sort of a phrenologist. But he is a phrenologist *sui generis*, and does not belong to the school of Gall, although he derives from that school every thing in the chapter that is worth reading. The worst of the matter is that he does not understand the science, as he clearly evinces in almost every page. The mistakes he has committed are innumerable.

A single quotation will be sufficient to show the strange, rhapsodical style, in which he writes on a grave philosophical subject, and will also exhibit to the phrenologist some of his mistakes—but not his grossest ones.

“This last category are the operations of the faculties totally distinct from those of the sensations. They are of a more elevated order; they conduct man into a more extended and more exalted sphere of action; they bestow on him moral capabilities that are not, and cannot be derived from the mere sensations.

“The external senses communicate a knowledge of all that is exterior to the intellect, but it is the intellect alone that appreciates the qualities of exterior bodies, that analyzes and compares their properties, that divines their influences, and appropriates them in diversified modes to the purposes of individual existence, to the excitation of pleasure and promotion of happiness.

“The internal organic sensations, it has been demonstrated, announce to the intelligence the individual wants; they notify it of the condition of the organs; they are consequently instrumental in the physical conservation; they preside over the material organization by instructing the intellect in its interests, and directing it in the means of preservation.

“But there also exist other internal sensations of a more sublimated nature, and destined to nobler purposes. These sensations are intellectual; they create our social wants; they bring man into association with his fellow being, by the necessity of this intercourse to his happiness. He is thus, by his organization brought to constitute society, to form communities, to lay aside the proud independence and unchecked will of an isolated savage, and to submit to the obligations of self control, and the restraints of legal authority established for the common good. From them, our existence derives its highest value, and they spread over it the most delightful of its charms, they humanize our nature; they clothe it with the most beautiful of its attributes; in them, originate the ties that bind the parent to its offspring during the helplessness of infancy, and the unprotected state of childhood: they touch the heart with the glow of love; they expand the bosom with the benevolent affections; they incite our actions by the disinterested feelings of philanthropy: from them, are the more dignified sentiments of love of truth, and of justice, and the moral sense of right and wrong.

“The very basis of the institutions of civil society, and the habitudes and regulations of social life, are thus seen to repose on sentiments attached to the exercise of particular faculties—the moral and affective faculties—and connected with especial organs. They may be termed with

propriety, the wants of the soul, and are to intellectual and moral being, what the organic sensations are to physical being; they necessitate the intellectual and moral acts by which they are to be gratified." p. 179-80.

A more singular anomaly than this can scarcely be found in philosophical composition, especially in the discussion of a subject which requires the utmost accuracy of thought and precision of language. Mental philosophy admits of as little loose rhetoric, and as few cumbersome epithets, as mathematics. And yet, in the paragraphs just quoted, there is scarcely any thing else. Nor can the small amount of matter they contain bear a strict scrutiny, without being demolished, as might be easily shown, had we leisure for the task. The reader we hope will receive kindly the attempt we make to amuse him further, by another passage of a similar stamp.

"The third class comprises actions determined by motives created by the intellectual faculties, and which constitute actions of reflection, of judgment, of deliberation. They are peculiar to man, they are fostered by education, they are sustained, strengthened, and purified by knowledge, and prevail in proportion to the refinement and civilization of society; which consist in the subjection of the acts of the sensations, and of the passions to the will, governed by motives of the intellect; and their repression when they would encroach on the rights, and interfere with the happiness of others. The truly great and noble-minded alone are thus happily prerogated, and enjoy the supremacy of the intellect over the passions and the instincts, or organic sensations, on all occasions, and which they can limit within the circle they should properly be confined to. Gifted with the most exalted virtues, they betray none of the weaknesses of our nature. The actions of this class have an expansive operation; they direct society in its civil relations, they extend their sway over whole communities, they give direction to men in collective bodies, and by them, one man acquires the power to influence the destiny of his species, to change the face of science, to advance or retard the progress of knowledge, to stamp with his genius the character of his age; they form the statesmen, the philosopher, the patriot." p. 183.

No reader can form an adequate conception of the frequency of occurrence of the rhetorical ebullitions, without perusing the chapter. If any one doubt this, let him try, and toil, as we have done, through thickets and entanglements of such words and phrases as the following—each of which is worthy of a distinguished place in a glossary—"famelic stimulations"—"fullest plenitude"—"psychological functions"—"domicil of sky-aspiring and ambitious thought"—"deliriation"—"aberant perceptions"—"intellectual acts become a chaos of unintelligible thoughts"—"torpid dullness,"—"camisole"—a term which scarcely one physician in a hundred will understand, and which no lexicon in our possession explains—let the reader, we say, try his patience on this unconcocted "Babylonish dialect," and then frankly declare whether he has ever before had served up to him, in a philosophical repast, such a palling mess of incongruous hotchpotch!

Might we venture, without giving offence (and we certainly intend none) to address to Dr. Jackson and Professor Geddings, a word or two of parting counsel, we would earnestly advise them to become, as writers, in substance as well as manner, less of foreigners, and more of Americans; to abandon their misplaced ambition and empty hope of attaining the rank of leaders at home, while they are nothing but retainers and followers abroad, and be content to move in line with their countrymen; to renounce all mental extravagance, and cultivate sound taste and sober judgment, especially a taste for simplicity and fitness, by which they will escape inflated conceptions and pompous diction; to bear in mind the maxim wisely inculcated on the heedless charioteer, *in medio tutissimus ibis*, and the fate that befell him, in consequence of his neglect of it; and above all, to avoid affectation, which is an acknowledgment of inferiority, and learn to think closely, definitely and clearly, giving to their ideas substance, shape, and arrangement, and comprehending them perfectly themselves, before attempting to communicate them to others, and then to express them in customary and intelligible language, using no more words than may be necessary for the purpose. In fine; we would admonish them to study well their own capacities and powers, improve them earnestly and judiciously, by such kinds and degrees of discipline, as may be found most suitable to them, and never, in violation of modesty and discretion, attempt again to overleap the boundaries of the limited sphere in which alone they can move with credit and usefulness. Should our advice be rejected, we have only in conclusion, to request our authors, to attach to each book and essay they may publish hereafter, a suitable glossary, to save their readers the time and trouble of constantly searching their dictionaries, often for words they do not contain. In case of their observance of

either of these forms of counsel, we promise the writers, that they shall hear from us no more, except perhaps in commendation of their reform, which would be much more gratifying to us, than the work of condemnation. But if they prove deaf to both, and obstinately persevere in their present style of composition, to the offence of good taste, and the danger of bringing discredit on the medical literature of our country, we hold ourselves as free to award censure, as they are to deserve it.

GUTHRIE ON THE CHRONIC ENLARGEMENT OF THE PROSTATE GLAND.

This disease is, as far as we know, produced by those changes which take place in the body in its natural progress to decay, being commonly observed to a greater or less extent in all elderly men. It occurs in some at a much earlier period than in others, does not appear to depend on any previous irregularities of life, or scarcely to be influenced by them; and as it does not take place, or has not been observed in the *corpus globosum* or prostate of the female, which is destitute of a secreting structure, this part may reasonably be supposed to be the texture in which the peculiar change takes place constituting the disease.

It was formerly presumed to be of a scirrhus or malignant nature from the hardness which occasionally accompanied its formation; but as it has not been observed to communicate an influence of this kind to the neighboring parts, or to any other analogous textures of the body, which usually suffer from malignant diseases, the idea has been abandoned. The only extension of a similar disease that I have seen has been of an apparently chronic suppuration, of a scrofulus character, of the nearest absorbent glands. I have seen this in only two instances, and the first occurred in an old man in Wardour-street. The prostate was larger than a closed hand, had partaken of a suppurative process of this kind, and the whole pelvis was nearly filled up by a mass of disease of a similar character. In the more common kind of enlargement, the part is rather soft than hard, yielding a little to the touch, and not elastic or springy, like a spongy tumor. The enlargement is sometimes but trifling, in which case the prostate retains its natural shape, and merely projects a little into and around the orifice of the bladder; but when it is considerable, in very prolonged and neglected cases it is often as large as a full-sized orange. One lateral half is usually much larger than the other, and protrudes into the bladder, giving rise to one or more projections, which cause great distress to the individual, and the nature of which has been, I think, misunderstood. The left side, I am led to believe, undergoes this change more frequently than the right, although no reason can be given why it should be so; and whilst one projection is directly backwards and inwards, it sometimes is seen to form a second immediately behind the orifice of the bladder, and which is frequently mistaken for an enlargement of that part of the gland behind the entrance of the vasa deferentia, and which has been called by Sir E. Home the third lobe. Without denying that a third lobe may exist, and is occasionally diseased and enlarged, constituting a projection of an apparently similar nature, I am of opinion that it is of much more infrequent occurrence than has been supposed, and that some mistake has taken place on this subject. That it is, in fact, not in general the third lobe in a diseased state, but a continuation of the enlargement of the lateral lobe. In the lithograph drawing I show you, a disease of this kind is represented: the third lobe appears to be projecting in a very distinct manner into the bladder immediately behind the orifice of the urethra, and the enlarged left lateral lobe is also seen protruding into it, and forming a second projection by the side of the first. Dissection from behind, however, shows that these two projections are formed by one and the same part, viz.—the left lateral lobe, and that the idea of the smaller pyriform one being formed by the third lobe is an error. I have reason to believe, from several dissections of a similar kind, that the diseased appearance I have shown is more commonly referable to the lateral lobe than to the third lobe.

When the prostate becomes diseased in this manner, it does not descend and bulge in the rectum, as would be the case if the enlargement were equal in all directions; but it rather ascends and projects backwards and inwards, the bladder giving place to the enlargement rather than the rectum. The increase in size upwards of the prostate has also a particular effect

upon the urethra, which is augmented in size with it, from its anterior to its posterior wall, and thus becomes a deep and narrow instead of a circular canal. This is shown in the drawing in a very distinct manner, and the size of it, and the quantity of urine which might lodge in it may be estimated, by supposing the two surfaces which have been slit open to be applied to each other. The letter *f*. marks a hole made by the improper use of the catheter in the under part of the membranous part of the urethra. The letter *g*. the commencement of another to the right side, and nearer to the prostate. The letter *c* several bruised spots at the neck of the bladder, and to the right side of the smaller projection. These were made by the point of the catheter on its being forcibly carried into the bladder. When the parts were removed from the dead body, and the man died the day after he was admitted into this hospital, the catheter could not be made to pass these spots without considerable force being used at the moment of depressing the handle of the instrument, the point of which went below the projecting central part of the prostate, into the deep sulcus formed below it, and between it and the floor of the urethra. When, on the contrary, the point of the catheter was made to glide along, and to raise the upper surface of the urethra, it slipped into the bladder with tolerable ease. I apprehend and hope that the contemplation of this drawing will not only demonstrate to the student the state of parts in such cases, but impress on his mind the course the catheter should take, or be made to take, in all similar cases in order to enter into the bladder without doing mischief.

When one side of the gland only is materially enlarged, it presses against the opposite side, and carries the urethra with it in a more or less oblique, or tortuous direction, constituting one kind of case in which an elastic gum catheter will pass very easily, without a stilet, when it will not do so with it, and is one in which a silver catheter should never be used. This state is generally discoverable by an examination per rectum.

The effect of these enlargements is, first, to lengthen the urethra, so as to render a long catheter necessary; secondly to deepen it, so that it may sometimes contain within the boundary of the prostate a small quantity of urine, which may run through the catheter before it enters the bladder, and thus deceive the inexperienced surgeon. Lastly it deepens the curve of the urethra from the apex of the prostate to the neck of the bladder, which may, and generally will, form another obstacle to the passage of an instrument, whether it be from an enlargement of the third, or the lateral lobe, or from a valvular, membranous, or solid bar drawn across it by the very unequal enlargement of one lobe.

The true chronic enlargement of the prostate is usually slow in its progress, and may attain to great size, and continue for many years without doing much mischief. When even it does become troublesome, it is rarely on account of the disease with which it is affected, but in consequence of that which it induces primarily in the bladder, and secondarily in the urinary organs. It is not a curable although it is frequently a very relievable disease. If attended to in its early stages, its progress may in general be arrested. It is therefore of the greatest importance that elderly men should pay attention to the manner in which their urine is evacuated, and that they should cease to entertain the opinion, that a slowness and a difficulty in passing their water, is the necessary and irrelievable consequence of an advanced period of life.

It affords us much gratification to announce, that Dr. Jos. N. McDowell, who has obtained for himself a high reputation in the Valley of the Mississippi as an able and instructive Teacher of Anatomy, has determined to deliver a course of Anatomical Lectures the ensuing session in the city of Philadelphia.

Dr. McDowell was, we believe, formerly the adjunct Professor of Anatomy in the Miami University; and, if we are correctly informed, is a relative of Dr. Drakes, of Cincinnati, one of the most distinguished members of our profession.

To travel in pursuit of reputation is the characteristic of an ardent and ambitious mind, and Dr. McDowell has done well to come to Philadelphia, which has long been acknowledged as the great centre of Medical Science, to win laurels. We with much sincerity wish him all the success he can desire.

THE
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MEDICAL AND CHIRURGICAL SCIENCE,

A MEDICAL NEWSPAPER,

EDITED

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PUBLISHED BY DUFF GREEN.

VOL. I.

WASHINGTON, DECEMBER, 16, 1834.

No. 48.

ON THE ANTI-PTYALISMAL VIRTUES OF IODINE.

By Dr. Lucius O'Brien, Assistant Surgeon, U. S. Army, Fort Towson, S. W. Frontier.

The summer and autumn of 1834 were prolific in the production of the higher grades of bilious diseases along the whole line of our south-western frontier, and the obstinacy with which they resisted the ordinary modes of treatment, will ever be remembered by the citizens and soldiers of this vicinity, who, to a man, were prostrated by some one of its protean forms.

Being the only medical officer for duty here, and our garrison participating in the common calamity to an extent scarcely credible, I had abundant opportunities of observing the inconveniences and dangers of protracted ptyalism. Mercury, in every proportion, from the cautious, "slow, and moderate" purging of Miner and Tully, of New England, to the macadamizing doses of Professor Potter, was called for by the diseases referred to. Operating on such diversified shades of constitution as the rank and file of an army afford, profuse and uncontrollable salivation was, of necessity, a frequent consequence.

Every medical man is aware of the perplexing nature of profuse ptyalism, and of the inertness of most of our resources, even where a copious collection of drugs and medicines are at hand. Stationed at one of the remotest out-posts, with an exhausted dispensary, and with a hospital crowded with mercurialized patients, my attention was necessarily alive to any suggestion of the means by which relief could be attained. In the "Medico-Chirurgical Review," for January, 1834, I met with the following proscription of the famous professor Hufeland:—

℞ Iodini gr. v. solve in
Spir. vini ℥ij.
Aqua cinn. ℥ij. ss.
Syrupi ℥ ss. M.

Half a table spoonful to be taken every six hours; the dose to be gradually increased.

In severe cases, "the severe smarting, the tumefaction of the glands about the mouth, and the profuse flow of spittle, ceased after three or four days' use of it, and the mercurial sores healed up" with great rapidity. In every case, a manifest amelioration of all the symptoms resulted from its exhibition.

In some of my cases very great difficulty of deglutition rendered its use internally very objectionable. I directed my hospital steward to put up,

℞ Iodini gr. x.
Ung. simp. ℥ss. M.

Whenever the ointment was applied the "royal touch" seemed manifest. An abatement of all the symptoms, local and general, followed, and the patient was soon reported for duty.

I have not had an opportunity of testing the qualities attributed to *iodine* by Drs. Kluge, Graves, and Brereton,* but from the rapid convalescence of some of my mercurialized patients, in whom organic inflammation was palpable, I have reason to believe that its virtues are not solely anti-ptyalismal.

CREOSOTE.

We have translated from the Medical Gazette of Paris, the following account of *creosote*, an article recently introduced into the *materia medica*. So far as the reports of British journals have reached us, this article does not appear to have proved as successful in the hands of the English physicians as in those of the continent.

A new substance, discovered by M. Reichenbach, first in pyroligneous acid and afterwards in tar, and to which he gives the strange name of *creosote*, presented so remarkable an action on animal substances, and particularly on blood and albumen, that it soon attracted the attention of the most distinguished physicians of Germany. At the present time, experiments are being made with it in the clinical institutes of Berlin and Vienna, as well as in many other less celebrated hospitals. We shall take care to keep our readers advised of the results obtained, and to day shall present them with some important facts which already testify to the utility of this new therapeutic agent. We shall first borrow some details upon the physical and chemical properties of this substance, from a very good analyses of M. Reichenbach's memoirs, inserted by M. Vallet in the October number of the *Journal de Pharmacie*.

Creosote is an oily, colorless, transparent liquid, of great repungibility; its odor is penetrating, disagreeable, and similar to smoked meat; taste is hot and very caustic; consistence that of the oil of almonds. Its specific gravity is 1.037, under an atmospheric pressure of 0.722' and 20° cent. It boils at 203° cent., and is not coagulated at 27° cent. It burns with a very fuliginous flame. It is neither acid nor alkaline, and forms with both acids and alkalines numerous compounds. It forms with water at 20° c. two compounds, one of which is a solution of one and one-fourth parts of creosote in 100 parts of water, the other is a solution of 10 parts of water in 100 of creosote.

But it is its action on organic substances that is most important. We have proven ourselves that if a drop of pure creosote be dropped on the white of an egg, in less than two minutes there forms on the surface, a dense, white, compact pelicle, which may be removed in one piece. Concentrated acetic acid, compared in this way with creosote, gives a soft coagulation without consistence; nitric acid forms a pelicle more rapidly, but is less dense and diffused than that that we obtained from the creosote. If instead of dropping it upon the pure white of the egg the latter be diffused in a considerable quantity of water, and a single drop of creosote be thrown into this mixture, it becomes immediately enveloped in small white particles of coagulated albumen.

Fresh meat put into a solution of creosote and withdrawn in half an hour or an hour and dried, may be exposed to the heat of the sun without any fears of putrefaction; it then hardens in about eight days, takes an agreeable odor of well smoked meat, and assumes a reddish brown color. Fish may be preserved in the same manner; but as pyroligneous acid and tar water produce the same effect, there is no doubt that creosote is the antiputrid conserving principle of the liquids, as well as of smoke.

Curious to know the mode of action of creosote in these cases, and presuming that the same action would take place on blood, M. Reichenbach put serum, the clot, the coloring matter, and the pure fibrin of that fluid successively in contact with creosote, and he has concluded from his experiments that it coagulates the albumen of the blood, that this coagulation takes place instantly when the two liquids are concentrated, more slowly when one or the other is diluted, and that fibrin properly freed from all the other principles is not attached by creosote. It is well known that coagulated albumen does not putrify, nor does muscular fibre of itself

* See April No. Johnson's Med. & Chir. Review, p. 455.

appear susceptible of entering into putrefaction. It is in consequence of this conservative property that M. Reichenbach has given to this new substance the name of creosote (from two Greek words meaning, *I preserve flesh*).

The action of creosote upon the animal economy is very energetic. Placed on the tongue it produces violent pain; in its concentrated state, when applied to the skin it destroys the epidermis; insects and fish placed in a solution of it soon perish; plants die when irrigated with its solution. Is not this deleterious action due to the same property that renders creosote a preserver of flesh—that of coagulating albumen? If, instead of pure creosote we put in our mouth a diluted solution of this substance, there is an astringent sensation and taste of smoke produced, which in one of our experiments continued more than two hours.

On reflecting upon these results M. Reichenbach was induced to think that creosote was the active and medicinal principle of tar-water, pyroligneous acid, the animal oil of Dippel, and the empyreumatic liquid, more recently discovered, which is prepared by adding heated chalk to pyroligneous acid, and distilling over a little more than half the liquid. This empyreumatic fluid having produced, it was said, the most happy effects in the treatment of cancers and gangrene, it was rational to attempt a comparative trial of the solution of creosote, or of the creosote itself. It is also known, that the anti-hemorrhagic water of Binelli, so much extolled in Italy, and which in some cases has been unquestionably successful, having been analyzed by Berzelius, that celebrated chemist found in it a peculiar substance which he had never met with before. From this analysis, Professor Schweiger-Seidel thinks that substance is no other than creosote. And in fact, the empyreumatic odor of the aqua Binelli, its entire transparency, and its unalterability by air, gives great weight to this opinion. The effects also, are the same, or rather the effects which we anticipate from the action of both in hemorrhages, according to their comparative influence upon blood and albumen, show themselves much the most strongly in creosote.* Dr. E. Graefe having already applied some drops of pure creosote to a cut that bled abundantly, the hemorrhage was immediately arrested; the blood coagulated on the wound in a reddish brown color, and the cut healed by the second intention. It is probable that by using the solution of creosote the union might have been produced by the first intention, and the author himself regrets that it was not tried. We know some cases ourselves of the same nature, where the solution succeeded perfectly.

Pure creosote, or its solution, representing the active principle of all these remedies, as quinine does that of the Peruvian barks, but with an energy in direct proportion to its concentration, analogy indicates at once to experimenters to what affections creosote may be applied. These first results appear very satisfactory, even after allowing for the exaggerations which will be mingled with all new discoveries. Thus we cannot admit, with M. Reichenbach, that he has cured by its internal use a case of phthisis pulmonalis in its last stage. There are some of his assertions too difficult to prove, and which none but the inventor, seduced by the beauty of his discovery, could be induced to believe.† But it appears beyond dispute, that creosote has produced good effects in many cases of caries, cancers, and ulcers, of bad character. Thus it is announced that in the surgical clinic of Giessen, Drs. Ritgen and Trapp, have made some experiments in which the injection of the water of creosote into the fistulas from carious bones, have produced the best effects upon the caries. These facts are not yet published, but the following is an example of the utility of creosote in a case of cancer, signed by a name that

* This will contribute not a little to enforce the argument of M. Double against the purchase of secret remedies; namely, that it is almost impossible that their composition should resist the researches of an analysis. The secret of the composition of the aqua Binelli has been bought in London, by Godfroy and Cook, for the enormous sum of 75,000 francs (\$15,000). If this opinion of Professor Schweiger-Seidel be correct, and there is every reason to believe it is, here is a capital well invested!

† In a very recent memoir M. Reichenbach abandons the internal use of creosote for chronic pulmonary affections. He proposes to plunge the patient into an atmosphere impregnated with this substance. To produce this, it is sufficient to suspend a sheet of paper imbued with creosote in the chamber of the patient, and to renew it as it becomes dried by evaporation. It cannot be denied that this is a very ingenious and simple method: it remains for experience to tell its results.

allows of no doubt; the author is M. E. Graefe, the brother of the celebrated professor of Berlin.

“Obstinate carcinomatous ulcers of the ala of the nose and of the palate; application of the water of creosote, and of this substance pure. Rapid amelioration.”*

“CASE. The patient on which I employed the creosote was a weaver, Ed. Wetzels, of Berlin, aged seventeen years, belonging to a healthy family, and offering himself no indication of any peculiar idiocracy. A year and a half ago he observed a pustule raise at the inferior extremity of the right wing of the nose, which continued to grow and which he at last scratched off. It then became an ulcer, which, continuing to spread, destroyed first almost the whole of the wing of the nose, and then a part of the point of the organ of the upper lip, discharging a black and fetid ichor. This was the condition in which the patient came to me.

“On examining the buccal cavity, I found the right side of the palate covered with ulcers of a pale red color, that yielded a very fetid pus of the same appearance. The patient had already consulted many physicians, and used a great number of remedies; he had even been in the hospital *de la Charite* of Berlin, without finding any relief.

“As M. Hellming, the apothecary, had been kind enough to give me some of the water of creosote, I resolved to try it on this subject. I passed a pencil dipped in this substance over the cancerous ulcers of the nose and palate, and introduced into the nasal fossa of the right side some lint soaked in the same; covered the whole by means of a dry pledget, and secured it by means of adhesive strips. The patient only complained of a slight smarting. The dressing was renewed every day in the same manner. The fourth day I observed that the ulcer of the nose was dry and covered with a reddish brown crust. I removed this crust, the ulcer bled a little, notwithstanding which I dressed it as usual. From that day crusts of the same nature continued to form, and I removed them as before.

“The eighth day the ulcer presented the following changes: it had not extended; relieved of the crust that covered it, it had no more of the fungous aspect that it first showed, whilst its surface seemed dried and mumified (*momifée*), and finally at the inferior edge of the nose, cicatrization had commenced. This cicatrix from the thirteenth day made a remarkable progress.

“Fifteen days after, M. Hellming having given me some pure creosote, I made use of it instead of the solution for the case. From it the patient felt a lively smarting pain, but which soon disappeared. The next day the crusts were much larger and a little more difficult to detach; it was the same again the next day. The ulcers of the palate began to look smooth, the supuration diminished, the cicatrization of the lower part of the wing of the nose continued to extend, so that at this time, the 5th of July, after thirteen days employment of the pure medicine, the diseased wing of the nose, the anterior part of the nasal fossa of the same side and the affected part of the upper lip, are cicatrized; there is yet only a small spot on the wing of the nose and the palate that still suppurates, and I have hopes of seeing the entire disease cured in a short time.”

We cannot complete these preliminary remarks better, than by inserting from the same journal, a letter from the discoverer, M. Reichenbach, to M. Hellming, apothecary of Berlin, at the time he sent him the creosote.

“I repeat that the creosote which I send you, is not, chemically speaking, absolutely pure; but it is sufficiently so for medical use. If in the course of time it takes a reddish tint, it is owing to the air, which however has no influence upon its therapeutic properties. This effect does not take place when the creosote is chemically and perfectly pure. This creosote then will not do to judge of its chemical properties, but only to prove its extraordinary medicinal ones.

“Physicians who make use of this remedy are desired not to employ it with too much timidity, and not to trust too long to its weakened solution when its effects are slow in showing themselves, but boldly have recourse to the creosote itself. It will it is true produce some pain for a few moments at first, but this is not followed by any accidents. In cancer when the

* *Journal de Chirurgie*, de MM. Graefe et Walther. vol. 20. p. 151.

lardaceous surface detaches itself, it is necessary to apply the creosote many times a day to the bleeding surface, without any regard to the pain. The cure runs on then with great rapidity.—*Gazette Medicale*.

LECTURE ON THE THEORY AND PRACTICE OF MEDICINE.—BY WILLIAM STOKES, M. D.,
Delivered at the Medical School, Park Street, Dublin.—Session 1833-34.

Recapitulation—Preservation of Function with Organic Disease—Application of the Laws of Development—Vicarious Action of Parts—Importance of Pathology to Phrenology—Diagnosis of Local Diseases of the Brain—Opinions of Bouillard, Serres, and Foville—Influence of the Optic Thalami and Corpus Striatum on the Motions of the Extremities—Researches of Andral—Diagnosis of Disease of the Cerebellum—Connection with the Generative System.

Gentlemen,—We were occupied at our last lecture in considering some of the phenomena of partial encephalitis, by which is generally meant, a localized inflammation of the deep-seated parts of the brain; because superficial inflammation of the cerebral substance is very rarely partial. I endeavored to show that the diagnosis of this local encephalitis was to be drawn, in a great measure, from the occurrence of pain and muscular affections of *one side of the body*: in other words, that the phenomena of this disease were partial, so as to give us at once a distinction between general and partial inflammation of the brain. In cases of general inflammation, we have convulsions of both sides, delirium, and coma; in the partial form these symptoms are absent until complication takes place. Thus the supervention of delirium, or of convulsions on both sides, in a case where previously the signs of only *partial* encephalitis existed, would point out, in all probability, an extension of disease to the opposite hemisphere. I also endeavored to point out the different modes in which partial encephalitis might be accompanied with symptoms of a general character, or affecting both sides; that there might be a co-existing inflammation of the membranes; or that the pressure of the diseased on the healthy hemisphere of the brain might be the cause of the complication. I stated, that some of the most remarkable cases of the most extensive destruction of the brain, without perceptible injury of the mental powers, were those in which a traumatic opening in the skull gave full scope to the swollen parts, and obviated the effects of pressure on the sound hemisphere. I also observed, that, in cases of local affections of the head, there are two causes which have a tendency to produce general symptoms. One of these is the cause which determines the pain and muscular affection of the opposite side; the other is the general determination of blood to the head; so that we may have cases in which the *actual inflammation* is limited to a part of one hemisphere, and yet, from the general determination of blood to the head, we may have coma and general symptoms.

To return again to the interesting consideration of great loss of cerebral substance with preservation of intellect, I have to remark, that this circumstance is one which some persons might quote against the opinion that the brain was the organ of intelligence; and I believe this fact has been laid hold of by the opponents of phrenology, and put forward as a powerful argument against the truth of its doctrines. Thus, for instance, in the case of Mr. O'Halloran's patient, who lost a large portion of one hemisphere, and yet, with all this mischief, the powers of the intellect remained unimpaired; it would not seem strange if a person should say, here is vast destruction of substance without any lesion of intelligence: how then can the brain be considered as the organ of thought? But let us look at this matter in its true point of view. In the first place, it is to be remembered that cases like this are rare,—that they are to be considered as the exception and not as the rule. I have already shown you that it is a law in pathology that lesion of structure and lesion of function are not always commensurate. This law applies to the brain as well as to all the other organs. To say that the brain was not the organ of intelligence, because in cases of extensive cerebral disease that intelligence was preserved, is false reasoning. A man will digest with a cancerous stomach;—is it to be argued from this, that the stomach is not the organ of digestion? I have seen the liver completely burrowed by abscesses, yet the gall-bladder was full of healthy bile. I have seen one lung com-

pletely obliterated, and yet the respirations only sixteen in the minute, and the face without lividity. What do these facts prove? Not that the health of organs is of no consequence, but that with great disease there may be little injury of function.

By reference to the original laws of organization, we may (in some cases at least) arrive at an explanation of this fact. You know that organs are primitively double; and we find, that though the fusion at the median line is produced by development, yet that the symmetrical halves still, to a certain degree, preserve their individuality. Thus we see how the laws of organization affect the phenomena of disease, and recognize a provision, acting from the first moment of existence, against the accidents of far distant disease.

Now, admitting that the brain is the organ of thought, we may suppose that, as in case of partial obstruction of the lung from inflammation, the remainder of the organ takes on an increased action, so as to supply the place of that which has been injured or destroyed. We know, that if one lung be hepatized, the other takes on its functions and carries on the process of respiration for a time. That this is the case, is shown, first by life being continued, and secondly, by the stethoscope, which informs us that the respiration of the lung, which has a double duty thrown upon it, is remarkably intense, proving the force of its action; and it has been further established, that the lung which thus takes on a supplemental action may become enlarged and hypertrophied. May not this also occur in the brain? There is no reason why such a pathological phenomenon, occurring in one viscus, may not also take place in another. But the opponents of phrenology say, supposing the organ of causation to be destroyed, how can the person continue to reason? It strikes me that the only way in which we can account for this is, by supposing that other parts of the brain take on the functions of those which have been injured or destroyed. Nor is there any thing extraordinary or anomalous in such a supposition. We see almost every day, examples of this kind. We see that in certain diseased states of the liver, accompanied by suppression of its secretion, its functions are assumed by other parts, and bile continues to be separated from the blood by the kidneys, salivary glands, and by the cutaneous exhalants. Here is a remarkable case, in which the glands and other parts take on the performance of a function totally different from that in which they are ordinarily employed. We find, also, that when the urinary organs are obstructed, urine, or its principles are discovered in parts of the system where we should not at all expect them. Thus we have a very remarkable case detailed in the *American Journal of the Medical Sciences*, in which we find that a young female, who labored under paralysis of the urinary organs, discharged urea from almost every part of the body, even from the ears. Neither is there any thing very extraordinary in this. In several instances of suppression of the menstrual discharge, do we not see a vicarious secretion taking place from the surfaces of parts the most distant, and unconnected with the uterine system? It is a well-established law, that when the functions of organs are suspended or destroyed, other parts will often take on the action of the injured viscus. Now, supposing that a portion of the brain is to be looked upon as the organ of causation, and such portion is injured or destroyed, there is no reason why the remaining sound portion of brain should not take on, at least to a certain extent, in addition to its own, the functions of that part which has been injured. If, independently of any phrenological views, we admit the brain to be the organ of thought, there is no reason why we should not admit that the loss of intellectual power produced by lesion of one part may not be supplied by an increase of activity in the remaining portions. It is only by a supposition of this kind that we can account for the preservation of the integrity of mind in many cases of disease of the brain. If we admit the phrenological doctrines, we can suppose that when one organ is injured, another may take on an additional function, and in this way preserve the integrity of the intellect; so that, whether we reason from phrenology or not, the continuance of soundness of mind, in cases of injury of the brain, can be understood when you come to contrast it with other analogous pathological facts. I again repeat, that it is not more extraordinary that, in case of local injury of the brain, the sound parts should take on a supplemental action, than that bile should be eliminated by the salivary glands, skins and kidneys, or that the principles of urine should

be discharged from almost every part of the system, or that a vicarious discharge from the roots of the hair should supply the place of the uterine secretion.

On this subject one point should be always borne in mind, viz., that we may be wrong in saying that a patient is *quite sane* while he is still an invalid and in bed. Unless we can show that after his recovery, and in his various intercourse with the world, he preserves his original intelligence, it would be wrong to assert that there has been absolutely no lesion of intellect consequent on the affection of the brain. While lying at ease in bed, and unaffected by any moral stimuli, he may seem to possess a sound condition of mind, he may put out his tongue or stretch forth his hand when requested; he may give an accurate account of his symptoms, and answer all the ordinary medical interrogatories with precision. But you are not from this to conclude that he is perfectly sane. Many persons under such circumstances have died in bed, and appeared to preserve their intellect to the last, but in such cases the test of sanity, *intercourse with the world*, could not be fairly applied, and hence I think that there are not sufficient grounds to pronounce a decided opinion as to the real condition of the intellect in such cases.

Before I quit this part of the subject, I wish to make a few remarks on the doctrines of phrenology. There can be no doubt that the principles of phrenology are founded on truth, and of course highly deserving of your attention, as likely at some future period, when properly cultivated, to exercise a great influence over medical practice. The great error of the phrenologists of the present day consists in throwing overboard the results of pathological anatomy. If a pathological fact is brought forward, as appearing to bear against the validity of their opinions, they immediately exclaim, "we don't recognize any fact or principle drawn from disease: our science has to do with the healthy, and not the morbid condition of the brain." Now, this is altogether absurd. Phrenology, if true, is nothing but the physiology of the brain, and pathology is nothing but the physiology of disease. Phrenology must be tested by disease as well as by health, and if it does not stand the test of pathology it is wrong. If phrenology be a science founded on truth, if it is a true physiology of the brain, or of that portion of it connected with mental phenomena, one of two results should obtain;—either that it should be confirmed by pathology, or that the difficulties which pathology presents, should be explicable in a manner consistent with the science. The phrenologists, in my mind, are doing a direct injury to the cause of their science, by their unnecessary and ill-timed hostility to pathology. It is idle to say, as they do, that theirs is the science of health, and that it is unfair to apply to it the test of disease. From pathology is drawn a host of facts, from which the doctrines they profess derive their principal support. The mere phrenologist, who understands not and despises pathology, is nothing better than a charlatan, and professes a science which he does not comprehend. If he would recollect that the brain in a state of health is most, and in a state of disease least, adapted to the purposes of thought, he would see that this is one of the strongest arguments in favor of his doctrine that the brain is the organ of mind. The more healthy it is, the fitter is it to discharge the functions of intellect, and *vice versa*, yet phrenologists are so absurd as to think that pathology has nothing to do with their science.

But besides confirming the doctrine that the brain is the organ of thought, there are innumerable facts drawn from pathology, which have a tendency to prove that particular parts of the brain are the organs of peculiar phenomena. We see an injury of one part of the brain, accompanied by a train of symptoms indicating some peculiar lesion of mind; we see an affection of another part attended by a different class of phenomena. Here pathology, the science which phrenologists reject and despise, goes to establish the ground work of their doctrines, that the brain consists of a congeries of parts, having each a separate and distinct function. We find, for instance, that disease of one portion of the brain affects the intellect, of another, the generative organs, of a third, the muscular system. What does this prove but that the brain is not a simple organ, but composed of a congeries of parts, each of which governs a different part of the system or ministers to a peculiar purpose. Now, what is this but what the phrenologists themselves wish to prove?

Further, the professors of phrenology have placed all their organs on the surface of the brain,

and for this they have been loudly censured. Phrenology, it is urged, knows, or professes to know, nothing about the central parts of the brain, which must be equally important with the superficial, and have confined their investigations to the surface alone. Now it is a curious fact, that the pathology, which they deny, in this instance furnishes the best reply to this objection. I mentioned at my last lecture, that if we examine the symptom of delirium, we find that it characterizes the inflammation of the periphery, and is commonly wanting in that of the deep-seated portions. In other words, mental alienation is the characteristic of the disease of that portion of the brain, where the phrenologists have placed the intellectual organs. Here is a strong fact in favor of the doctrines of phrenology, derived from that science, which the mere phrenologist throws overboard and despises. Again, according to the researches of some celebrated French pathologist, there are a number of facts to show that there is a remarkable difference between the symptoms of arachnitis of the convexity and of the base of the brain. This conclusion, which after a most careful series of investigations was adopted by them, is borne out by the results of my experience, and appears to me to be established on the basis of truth. They have discovered that arachnitis of the convexity of the brain is a disease characterized by prominent and violent symptoms, early and marked delirium, intense pain, watchfulness, and irritability. We have first delirium, pain, and sleeplessness, and then coma. But in arachnitis of the base of the brain, the symptoms are of a more latent and insidious character; there is some pain, and the coma is profound, but there is often no delirium. What an important fact for the supporters of phrenology is this, and how strikingly does it prove their absurdity in rejecting the lights derived from pathology! Here we find the remarkable fact, that inflammation of the arachnoid, investing the base of the brain to which phrenologists attach comparatively no importance, is commonly unattended with any lesion of the intellectual powers, while the same inflammation on the convexity is almost constantly accompanied by symptoms of distinct mental alienation.

It is objected to the phrenologists that they know little or nothing of the central parts of the brain, that though these parts may be fairly considered to be of as much importance as any others, still they do not admit them to be organs of intellect. Now, what does pathology teach on this subject? It shows that we may have most extensive local disease of the central parts of the brain, that we may have inflammation, suppuration, abscess, and apoplexy, without the slightest trace of delirium. Indeed there can be no doubt that the central portions of the brain have functions very different from those on the surface. They appear more connected with another function of animal life—muscular motion and sensation. Then, let us examine the phenomena of old age. Every one is familiar with the fact that when a man arrives at an extreme age, he generally experiences a marked decay of intellectual power, and falls into a state of second childhood. Does pathology throw any light upon this circumstance? It does. From a series of ingenious and accurate investigations conducted by two continental pathologists, Cauzevielh and Desmoulins, it has been found that a kind of atrophy of the brain takes place in very old persons. According to the researches of Desmoulins it appears, that, in persons who have passed the age of seventy, the specific gravity of the brain becomes from a twentieth to a fifteenth less than that of the adult. It has also been proved that this atrophy of the brain is connected with old age, and not, as it might be thought, with general emaciation of the body; for in cases of chronic emaciation from disease in adults, the brain is the last part which is found to atrophy, and it has been suggested that this may explain the continuance of mental powers, during the ravages of chronic disease; and also the nervous irritability of patients after acute diseases, in which emaciation has taken place.

I might bring forward many other facts to show that phrenology is indebted to pathology for some of the strongest arguments in its favor, and I think that those phrenologists who neglect its study, or deny its applicability, are doing a serious injury to the doctrines they seek to establish. The misfortune is that very few medical men have turned their attention to the subject, and that with few exceptions, its supporters and teachers have been persons possessing scarcely any physiological, and no pathological knowledge. Phrenology will never

be established as a science until it gets into the hands of scientific medical men, who, to a profound knowledge of physiology, have added all the light derived from pathological research. To give you an instance of the mode of reasoning of the non-medical phrenologists. In their drawing-room exhibitions, they appeal with triumph to the different forms of the skull in the carnivorous and graminivorous animals with respect to the development of destructiveness; and all are horrified at the bump on the tiger's skull. But as Sir H. Davy well observes, this very protuberance is a part of the general apparatus of the jaw, which requires a more powerful insertion for its muscles in all beasts of prey. Phrenology, as generally taught, may answer well for the class of dilettantis and blue stockings, or for the purposes of humbug and flattery, but its parent was anatomy, its nurse physiology, and its perfection must be sought for in medicine. The mass of inconsequential reasoning, of special pleading, and of "*false facts*," with which its professors had encumbered it, must be swept away, and we shall then, I have no doubt, recognize it as the greatest discovery in the science of the moral and physical nature of man that has ever been made. I feel happy, however, in thinking that of late the science has been taken up on its true grounds, in Paris, London, and Dublin. Vimont's splendid work on Comparative Phrenology will form an era in the science. In London, Dr. Elliotson has directed the energies of his powerful mind to the subject, and in Dublin we have a Phrenological Society, of which Dr. Marsh is the president, and my colleague, Dr. Evanson, the secretary, and under such auspices much is to be expected.

Having drawn your attention to the ordinary symptoms of local encephalitis, our next inquiry is how far we can diagnosticate the actual seat of disease from phenomena observed during the life of the patient. Do not suppose for a moment that this part of the subject is undeserving of your attention, in the strongest sense of the word. Recollect that the more accurate and extensive is diagnosis, the more certain and available is the practice of medicine. On this subject matters are not altered to the same extent as in the cases of chest, or abdominal diseases. In our knowledge of the two latter we have made vast strides within the last few years, but in cerebral affections, though much has been effected, much still remains to be done; and it is not improbable that some of the opinions on this subject still promulgated in schools require correction. If we examine the various cases of cerebral disease on record, we find that in some the paralysis was complete, and that sensation and muscular motion became as it were annihilated. In other cases the muscular system alone appeared to suffer, while in a third class we find that sensibility is destroyed, while the power of motion remains intact. Again, in some we have complete hemiplegia, in others the paralysis is but partial; in some the affection is slight and transient, in others it is incurable and permanent. The result of all this would appear to imply that there are different states and seats of cerebral disease, producing different modifications of nervous phenomena. It has been taught that a paralysis of the organs of speech, points out a lesion of the anterior lobes of the brain, and there are many cases on record in support of this opinion. Here is a pathological statement strongly in favor of the doctrines of phrenology. But on the other hand it must be confessed that there are numerous cases on record of lesion of the powers of speech, independent of any affection of the anterior lobe; and hence as far as the diagnosis of lesion of the anterior lobe, derived from loss of speech is concerned, we cannot make up our minds. You are aware that the phrenologists place the organ of language in the anterior inferior part of the brain. Now when an affection of this portion of the brain is found to coincide with the loss of speech, it is all very well, but the difficulty is to account for those cases of loss of speech, in which there is no appreciable lesion of the substance of the anterior lobe. In investigation on this point, however, you must bear the following distinction carefully in mind. The organ of language of the phrenologist is not properly the organ of the *power of speech*, but that by which, as it were, thought is converted into language. A man, from paralysis of his tongue, might be incapable of speaking, and such a case, existing without lesion of the anterior lobes, might be most unfairly quoted against the phrenologist. Again, paralysis of the upper extremities has been connected with disease of the optic thalami and posterior lobes of the brain. It is the opinion of Bouillaud, Serres, and

others, that the optic thalami regulate the motions of the upper extremities, and it is a fact, that in many instances of paralysis of the upper extremities, disease has been found in these parts. We might term the following a synthetic case, illustrative of the doctrine :—"A soldier was wounded in the right shoulder with a lance, in consequence of which he got an aneurism of the axillary artery, for which an operation was performed. At the moment the ligature was tightened he experienced exquisite pain in the situation of the ligature, which extended to the brachial plexus; this continued until the next day and then ceased. On the fourth or fifth day the pain returned with increased violence, and continued until the seventh day, when it became intolerable. He was blooded, but without any good effect, he then became comatose; his head was drawn backwards; he had alternations of stupor and excitement, and soon after expired. On dissection the ligature was found to embrace some of the principal branches of the brachial plexus, and there was an abscess in the posterior lobe of the brain, extending to the optic thalamus. Here we have a case of injury of the upper extremity, and that portion of the brain, which is supposed to govern it, was found in a state of manifest disease. Serres gives also the details of some experiments in support of this opinion. On removing the posterior part of the right hemisphere of the brain in a dog, he found that the left anterior extremity became paralytic; he prolonged his incisions into the corresponding portion of the opposite hemisphere, and found that the right extremity became paralysed. In another dog he plunged a bistoury into the posterior part of the right lobe, and found that the left anterior extremity became affected with convulsive motions. He then introduced into the wound a few drops of nitric acid, so as to produce inflammation of that portion of the brain, and observed that the convulsions of the left fore-foot became more violent; in fact that the animal had all the symptoms of a local inflammation of the brain, namely, convulsions, rigidity, and then paralysis. Rolando has performed a series of experiments with the same view, and his conclusions are exactly those of Serres. So that if we connect the results of these experiments with some facts drawn from pathology, we might conclude that the optic thalami, and posterior lobes of the brain, have a very important share in regulating the muscular motions of the upper extremity. I may here state, that, in this city, a case of a female occurred, who got an attack of severe pain in the left hand and fingers, which became afterwards contracted, and she had, in addition to this, alternate flexions and extensions of the fore-arm, *followed by resolution and paralysis*. On dissection there was an abscess found in the right optic thalamus; the rest of the brain was healthy.

With respect to those cases, in which there is paralysis of one of the lower extremities, it has been taught that it arises from disease of the corpus striatum. On the anterior lobe the following case is given by Serres :—"A woman 40 years of age, had an attack of apoplexy, from which she recovered with the left leg in a state of complete paralysis, and the left arm admitting of a slight degree of motion. Here was a case of lesion of both the upper and lower extremity of the same side, but in the former the paralysis was partial, in the latter complete. On dissection it was found that two circumscribed abscesses existed in the substance of the right hemisphere, the larger situated in the corpus striatum, the smaller in the optic thalamus. Another case is given of a patient who got paralysis of the side; the muscular power of the arm being completely destroyed, while the leg retained a considerable degree of motion. In this case the corpus striatum was but slightly affected, while nearly the whole substance of the optic thalamus was destroyed. I have also to remark, that Serres performed similar experiments on the corpus striatum in dogs, and came to the conclusion, that it governs the motions of the lower extremities. The structure, extent, and special action of the corpus striatum and optic thalamus, are said to afford some explanation, why, in ordinary cases of paralysis, the arm is more often affected than the leg, and does not recover so soon. The fact of the prolongations of the optic thalami being much more complicated and extensive than those of the corpora striata, is thought to explain their greater liability to disease.

There are, however, not unfrequent exceptions to this law, and it is not uncommon to meet with cases which militate against the doctrines laid down by Serres and other pathologists,

particularly so far as regards the connexion between the corpora striata and the government of the lower extremities, so that I would have you look upon it as a point *by no means* fully established. The latest observations on this subject are by Andral, who brings forward many facts opposed to the opinions of Serres, Foville, &c. &c. Out of seventy-five cases of accurately circumscribed disease of the brain, the disease being hemorrhagic or otherwise, he found that in forty, where the paralysis existed in both extremities of one side, there were twenty in which nothing was injured but the anterior lobe, or the corpus striatum; while in nineteen the lesion existed in the posterior lobe, or the optic thalamus. In these seventy-five cases, also, were twenty-three in which one arm was paralysed. In these, eleven presented the disease in the anterior lobe, or in the corpus striatum; ten in the optic thalamus, or posterior lobe; and two in the middle lobe. Finally, out of these cases were twelve of paralysis of one arm; ten of these presented disease in the corpus striatum, or anterior lobe, and two only with disease in the optic thalamus, or in the posterior lobe.

These facts, gentlemen, prove how uncertain the matter is yet. It would appear that when a simultaneous and equal injury of both corpora striata and optic thalami exists, it would be natural to expect complete paralysis of one side, and I believe there are some cases on record in support of this opinion. But when you have paralysis affecting both sides of the body, you are not to suppose that there is necessarily an affection of the corpora striata and optic thalami, for such symptoms, in the majority of cases, are found to depend upon either an intense congestion of the brain, or a large serous, or sanguineous effusion. The same phenomena are produced by the pressure exercised by the disease on the sound hemisphere, in a case of local encephalitis, or by disease affecting the upper part of the spinal cord.

With respect to disease of the cerebellum, the only means of determining its affections consists in first considering the seat of the pain, if any, and in the next place the effect on the genital system. There are a great number of cases detailed in various treatises in proof of the close connexion between the cerebellum and genital function. I shall relate a few of these. A man, aged thirty-two, got an attack of apoplexy, followed by a violent erection of the penis, which continued until death; here we have a case of apoplexy accompanied by priapism. On dissection the whole of the cerebrum was found healthy; but there was an apoplectic effusion in the middle lobe of the cerebellum. Another case is given of a man, aged fifty-five, who died of apoplexy in a brothel, and who, after the attack, had violent priapism.

On dissection the substance of the cerebellum was found to be extensively destroyed, and there was an apoplectic effusion in the fourth ventricle. There is a remarkable case on record of a prostitute, in whom the clitoris was extirpated, as it was considered that it was the irritation of that organ which brought on a pernicious habit, by which her health was greatly impaired; and it was conceived that as soon as the supposed source of excitability was got rid of, she would give up her vicious propensity, and be restored to health. But in this instance it is probable that the effect was taken for the cause; for on her death, which took place some time after, the cerebellum was found to contain a number of chronic abscesses. Serres gives the case of a woman who died of an apoplectic effusion into the cerebellum. During the fit she had hemorrhage from the uterus; and, on examining that organ after death, a large clot of blood was found within its cavity, and the broad ligaments, ovaries, and, in fact, every part of the generative apparatus were in a state of high vascularity. Yet this female was seventy years of age, and her menses had ceased at the usual period. There is a most important case bearing on this point on record. A gentleman, who was subject to constant and distressing nocturnal emissions, consulted his physicians, who, considering them to be the result of debility, prescribed various tonic and stimulant remedies. He used various preparations of iron, bark, camphor, opium, hyoscyamus, nitric acid, and many other things of a similar kind, but without advantage. From the fact of the failure of all these remedies, and the circumstance of his having complained of an occasional sense of uneasiness in the back of the head, his physician was led to think that his symptoms might have some connexion with an excited condition of the cerebellum; and, under this impression, had the back of the head

shaved, leeches, and covered with a quantity of pounded ice. *From this time his symptoms began to decline rapidly, and in a fortnight he was quite free from complaint.* Now, this case taken singly, would prove very little; but when we view it in connexion with the number of cases in which disease of the cerebellum has been known to be followed by excitement of the genital organs, it becomes of considerable importance. I have now seen two cases in which this connexion was observed. In the case of a young man who was brought into the Meath Hospital some time ago with paraplegia, it was observed that the penis was in a state of constant erection, and there were continual seminal emissions. On dissection an effusion of blood was found in the cerebellum, and another in the hemisphere opposite the paralysed side. There was another case of a patient who was attacked with apoplexy and paralysis of one side, but with the unparalysed hand he continued to attempt the act of masturbation, so that it was necessary to tie down his hand. On dissection there were several effusions in the substance of the cerebellum. All these facts strongly go to prove the connexion which subsists between the cerebellum and the generative function; and I think it would not be unsafe to make the diagnosis of disease of that organ in cases of cerebral disease, where the genital system was much excited.

FOREIGN HOSPITAL REPORTS.—HOTEL DIEU.

Abscess in Front of the Axilla—Stagnation of Pus—Death—Autopsy.

Anne Coffurann, thirty years of age, of nervous temperament and feeble constitution, was admitted into this hospital, under the care of M. Sanson, December 26, 1833. In attempting to lift any weight she experienced acute pain in the superior part of the right side of the chest; there was great tumefaction in the right axilla, which was extremely painful, though the color of the skin remained unchanged, accompanied with shiverings and fever. The danger of a deep-seated abscess was apprehended, though no fluctuation could be detected; all means were employed to expedite the progression of the abscess. At first she was bled, and, in the course of five days, leeches were applied to the affected part, and baths were prescribed as frequently as she could bear them. At first, from this treatment, the symptoms became relieved, but in a short time they became worse, and fluctuation was evident.

M. Sanson endeavored to ascertain the situation of the tumor, and believed it to be between the two portions of the pectoral muscles. It appeared to be immediately behind the axillary artery, which it had pushed forwards and outwards, and separated from the pectoral muscle and integuments by the coraco-clavicular fascia. From the depth of the abscess and its strong coverings anteriorly, M. Sanson feared that it would open into the cavity of the chest, or extend into the anterior mediastinum. He, therefore wished to make an external opening as speedy as possible, though not the slightest inflammatory blush was perceptible on the cutaneous covering.

On the 6th of January, eleven days from her admission, he made an incision, two inches and a half in extent, dividing at first the integuments, then some of the fibres of the great and lesser pectoral muscles, when a small quantity of pus escaped from the orifice, in consequence of which, with a blunt-pointed bistoury, the wound was enlarged, which allowed a free exit to the collected matter. The divided edges of the wound were separated by means of a dossil of lint; the pus that escaped was of a good consistence and healthy. The patient was much relieved, though she was still restless, and was unable to sleep.

9th. This morning she complains of pain on the right side of the posterior part of the chest, accompanied with diarrhœa. A starch injection was administered, which arrested the looseness, and leeches were applied to the painful part. The next evening the diarrhœa returned, an opiate clyster was administered, after which she obtained a comfortable night.

10th. Complains of a disagreeable odor from the suppuration; the wound to be washed with a mixture of the chloride of soda and water, and the bed to be sprinkled with the same fluid several times during the day. In the evening she became much worse, nausea and vomiting supervened.

In spite of all remedies the patient became weaker. Some wine was prescribed, of which she took but a very small quantity at a time. This appeared to rouse her from the lassitude and exhaustion of which she was suffering. A roll of lint was now placed in the axilla, and retained in this situation by means of a bandage, so as to approach the united edges of the wound. On the 16th all the symptoms appeared relieved; nausea and relaxation had ceased; strength much improved.

For some days the patient complained of slight pain in the cavity of the axilla, especially towards the edge of the omo-hyoid muscle. Every day this region was examined with the greatest care; skin remained unchanged; a probe was introduced into the wound, and directed towards the border of the omo-hyoid muscles, where she complained of the most suffering. No further diagnosis could be ascertained; the pain remained stationary.

28th. From the increase of symptoms a counter-opening was indicated. The application of compression was discontinued, in the hope of permitting the stagnant pus to escape by its own gravity, which however did not take place, neither was the counter-opening practicable from the deep situation of the abscess. For the sake of keeping up her strength, if possible, she was wheeled about in a chair, which, though it at first excited vomiting, appeared to revigorate her bodily powers; tongue brown and dry; no appetite.

All the symptoms evidently arising from the stagnation of pus, and the impossibility of making a fresh opening, M. Sanson decided on increasing the one already made. He thus prolonged the extent of the wound inferiorly, first ascertaining the exact situation of the artery; and by dividing the external lip of the wound beneath the lesser pectoral muscle, a large quantity of pus escaped; no hemorrhage supervened. Some extract of bark was prescribed. The patient experienced slight alleviation; but, in spite of every precaution, the matter continued to collect, suffocation accompanied with cough came on, which daily appeared to increase, dyspnoea became intense, and on the 12th the patient died.

Autopsy.—On examining the abscess, a clot of blood was found in its cavity, and the axillary vein was perforated. The quantity of blood that had escaped could not be ascertained, in consequence of being obliged to dislocate the clavicle, which much increased its quantity. The abscess extended from the sixth intercostal space to the clavicle, circumscribed internally, but externally the anterior walls were very thin, and extended between the greater and lesser pectoral muscles, also between the subscapular and serratus magnus. The intercostal muscles had become nearly absorbed, especially the third, through which the pleura could be observed; and, in one point, this membrane had contracted adhesions with the internal wall of the abscess. All the viscera were healthy.

HOPITAL DES ENFANS MALADIES.

Cephalalgia—Paralysis of the left Side—Strabismus—Prolapsus of the left Eyelid—Death—Autopsy.

—Patie, three years and a half old, who had enjoyed perfect health up to the first of March last, when she complained of pain in the head, became dull, morose, and exceedingly indolent. In the course of a month from the attack of cephalalgia, without any apparent cause, she was seized with vomiting, which continued for two days, and then disappeared. She was always troubled with acute pain in the head, which became at intervals much more severe; at this time a sensation of numbness attacked the limbs of the left side, and strabismus of the left eye followed. The numbness increased so rapidly, that, in the course of three weeks, locomotion, or walking, was impossible. Somnolency came on: irregular accessions of fever supervened; diminution of appetite; constipation. She was free from delirium and convulsive movements of the limbs. Before her admission into the hospital, she had been under medical treatment. Leeches had been applied to the head, and a blister to the back of the neck; tepid baths had been prescribed, with cold lotions to the head.

When admitted on the 6th of May, she was unable to lie on the back; countenance anxious and emaciated; distortion of the mouth; strabismus of the left eye, with prolapsus of the right superior eyelid; voice feeble, articulation difficult, with paralysis of the left limbs, the superior

extremity somewhat contracted; no pain in the head; tongue moist, but covered with a whitish mucus; no appetite; constipation; skin natural; pulse 92, scarcely perceptible.

Four grains of calomel were ordered to be given in two doses, and a clyster composed of two drams of the leaves of senna with an ounce of mercurial honey; two setons were also ordered to be made behind the mastoid processes of the temporal bones; but, in consequence of the profuse suppuration caused by the blister, they were not applied. The symptoms continue the same; a scanty stool followed the clyster. (Six grains of calomel and rhubarb were prescribed, and eight leeches to be applied behind the ears.)

10th. No manifest change has taken place. (The camphorated liniment was ordered to be rubbed on the spine, and an infusion of the arnica montana was ordered.)

11th. Countenance pallid; incomplete occlusion of the right eye, strabismus of the left, the pupil of which is much dilated. All the other symptoms continue the same. (Sulphurous baths, infusion of arnica continued.)

21st. There is an erysipelatous blush around the wound, caused by the blister; extreme weakness; diarrhœa: evacuations involuntary.

22d. Diarrhœa continues; stools bloody; difficulty of respiration; cough.

25th. Violet hue of the countenance; diaphragmatic respiration; tracheal rale; occlusion of the eyelids, by raising them the cornea appears dull, and the pupils somewhat dilated; pulse thready, very quick. Died during the day.

Necropsy eighteen hours after Death.—Head.—Dura mater healthy; soft fibrinous clots in the superior longitudinal sinus; arachnoid healthy; white substance of the brain not so elastic as natural; cortical substance healthy; an ounce of serous effusion in the lateral ventricles. On exposing the peduncles of the brain, the right was found much more voluminous than the left; in the substance of the former a tubercle about the size of a hazel-nut was discovered, in the cavity of which was found a poraceous fluid. The remainder of the brain and spinal marrow was healthy.

Some tubercles were found in the bronchial ganglions, also some miliary tubercles in the parenchymatous structure of the lungs.

There also existed a few tuberculous depositions in the mesenteric glands. The termination of the ileum presented ecchymotic patches, and there was slight *ramollissement* of the mucous membrane towards the termination of the colon. The other parts of these viscera were healthy.

We will here subjoin another case, the symptoms of which were similar, though the morbid production was situated in a different part of the encephalic substance.

Paralyses of the Right Side—Death—Tubercles of the Cerebellum and Annular Protuberance. John Morque, aged 11, had enjoyed good health till February 1833. At this period he was attacked with brain fever, supposed to have been produced from fright; this affection lasted many weeks; and during convalescence his extremities became swollen, succeeded by abdominal effusion.

In the following August he came to Paris from Auvergne; the operation of paracentesis was performed, and nearly six quarts of serous fluid were discharged. A month afterwards the abdomen became again distended, and the same operation was again had recourse to, at this time seven quarts were evacuated.

A few days after the last operation, new symptoms supervened. The patient complained of an acute intermitting pain in the occipital region; strabismus, succeeded with imperfect vision, supervened, which at intervals, for a short period, was perfectly destroyed. Articulation of sounds became difficult, and stuttering was produced; the limbs of the right side became numb. In the course of three weeks the strabismus and difficulty of articulation subsided. During this time he had frequent attacks of vertigo and giddiness, and fell suddenly down, without losing any of his mental faculties. His sight, however, remained feeble, and his mouth became more and more drawn to one side. All mobility of the limbs of the right side was lost, which were œdematous and cold.

On the 21st of December he was admitted into the Hotel Dieu, and was then in the following condition :—

General emaciation ; circumscribed blush on the cheeks ; cephalalgia occupying the occipital region ; incomplete palsy of the superior and inferior extremities of the right side, there being a slight power of movement of the fingers and toes, but was unable either to raise the arm, or to keep it in that position when raised ; sensibility very obtuse. Articulation of sounds very difficult ; answers to questions rationally ; right pupil very much dilated, left somewhat contracted ; tongue wide and moist, covered with a thick fur ; moderate thirst ; appetite tolerable ; tenderness on pressure about the abdomen, especially in the epigastric region ; diarrhœa, stools of a light color and fetid ; skin hot and dry ; pulse small, regular, 124 ; cough, no expectoration ; slight difficulty of respiration ; urine scanty, not albuminous. (Infusion of couch grass and gummy julep were prescribed.)

He remained much the same till the 31st, when violent delirium supervened, succeeded by a state of collapse.

Jan. 1st.—Countenance pale and anxious ; voice feeble, articulation very incomplete ; can scarcely protrude his tongue from the mouth ; pupils equally contracted, but sensible to a bright light ; pulse small, regular, but thready ; urine and feces pass involuntarily ; abdomen much less distended than on admission.

White decoction ; sinapisms to the feet ; broth.

The symptoms continued to increase till the 5th, when death terminated the sufferings of the patient.

Autopsy.—*Head.*—Arachnoid healthy, but in the cellular tissue under this membrane some gelatinous and transparent secretion was perceived. At the anterior part of the left hemisphere this liquid was thinner, and more of the color of wine ; very slight effusion in the lateral ventricles ; cortical substance healthy. At the external and lateral part of each lobe existed a tuberculous mass, about the size of a bean. These masses were of somewhat harder consistence than the substance of the cerebrum. The middle lobe of the cerebellum contained a tubercle of the size of a walnut ; also in the annular protuberance there was found a tuberculous deposition, of a harder texture than the pons Varolii, and prolonged itself to the peduncle on the left side ; in the right peduncle this deposition appeared also to exist, also in the superior wall of the fourth ventricle, surrounded by medullary substance.

Chest.—A similar tuberculous deposition was found throughout the parenchymatous structure of the lungs.

Abdomen.—In the cavity of the peritoneum about a quart of serous fluid, of a brick color, was contained ; adhesions of the abdominal contents with the peritoneum. The surface of the peritoneum was of a darker hue than natural, more particularly above the umbilical region ; several ulcerations about the intestinal tube were apparent, also in the ileo-cæcal valve. All the abdominal organs were healthy, with the exception of the left kidney and the bladder, the first forming a complete cyst, and containing in its ureter a calculus, the second, on its superior and posterior part, having a tuberculous ulceration.

DR. J. L. BARDSLEY'S REMARKS ON STRYCHNIA.

The author, in the commencement of his paper, is anxious to correct an error into which some practitioners have fallen, in imagining that he had proclaimed strychnia, in his "Hospital Facts and Observations," as a specific in every form of paralysis. What Dr. B. has actually stated in that work is, that this remedy was employed in "some cases of paralysis with no benefit ; in others with only partial advantage ; but in the majority with complete success ;" and it is added, that "whenever paralysis arises from tumors compressing the substance of the brain, or from a diseased alteration in its mass and structure, or from extravasation of a fluid in such a state or degree as will not admit of its absorption, it will be readily admitted that no benefit is to be expected from the employment of any remedy which has yet been discovered."

The opinion expressed in these passages is abundantly confirmed in the paper before us, by reference to various weighty authorities, and to cases since met with by the author, or communicated to him by professional friends. Dr. Booth, of Birmingham, among others, has supplied some curious experiments, which serve well to exemplify the powers of strychnia; they fully suffice, at all events, to dissipate Dr. Christison's doubt about the action of this alkali on the brain.

EXPERIMENT 1.—Tuesday, April 26, 1831: on a shepherd's dog, about one year old, weight 24 lbs. At four p. m. one sixth part of a grain of strychnia, inserted into a small piece was thrust down his throat. The animal was closely watched until seven p. m. but no effect from the pill was observable. 27th, three p. m. another pill, containing one-fourth of a grain of strychnia, was given. The dog was watched as before, but no effect was noticed. The dose (gr. 1-4) was repeated on the 29th and 30th, but equally without any apparent effect having been produced by it. May 1st, four p. m. a pill, containing half a grain of strychnia, was administered; at a quarter before five, no effect was observable; at five he was found lying on his side, with his legs extended, mouth open, and his whole body in convulsions. His mouth would frequently close with a loud snap; the pupils of the eyes were alternately dilated and contracted. Respiration was carried on with difficulty, and the action of the heart was very irregular; sometimes contracting ten or twelve times in rapid succession, then suffering an intermission of three or four seconds. The animal continued in this state till ten minutes past five o'clock, when, the convulsive action of the muscles gradually subsiding, he died.

Sectio cadaveris, four p. m. May 2, twenty-three hours after death.—The calvarium, and the exterior portion of the vertebral column, having been removed, so as to expose, at one view, the brain and medulla spinalis, the following were the appearances noticed:—

Brain.—The blood-vessels injected, and beautifully arborescent. The pia mater covering the medulla oblongata particularly vascular or injected. The choroid plexus very vascular. No serum in the ventricles. In cutting into the substance of the brain, several dotted points were observed.

Medulla Spinalis.—In the bony cavity of the spine there was much congestion about the sinuses, and great vascularity of the membranes about the upper dorsal and the lower lumbar vertebræ. The dura mater of a light pink color, and turgid. The arachnoid membrane natural. The internal structure of the cord itself was dotted with sanguineous points.

Thorax.—In the cavity was contained from about $\frac{3}{4}$ ss. to $\frac{3}{4}$ j. of fluid. The lungs were collapsed and congested, but did not sink in water. The heart was turgid, and on both sides filled with black blood.

Abdomen: Stomacy.—The mucous coat had a slight pink blush.

Intestines.—In the *ileum* were found several patches, varying in magnitude from the size of a sixpence to that of a shilling; also an oblong patch of four or five inches in length, and a finger's breadth, apparently the seat of ulceration in the mucous coat of the intestine. It had a reticulated appearance. The aggregate and solitary glands were seemingly the parts affected. In the *colon* the same appearances were more sparingly found. In the cæcum and rectum numerous and prominent pustules or pimples, with a point of depression in the centre of each, and containing a viscid fluid, were very conspicuous, giving altogether, an appearance not dissimilar to small pox pustules in the early eruptive stage.

EXPERIMENT 2.—May 1, 1831: on an old terrier dog. At four p. m. a pill, containing a quarter of a grain of strychnia, was thrust down his throat, enveloped in a small ball of fat. The animal was carefully watched for four hours afterwards, but no appearances indicative of any influence from the strychnia presented themselves. May 2, at four p. m. another pill, containing the same quantity of strychnia (gr. 1-4), was given. The dog was watched for four hours afterwards, but no symptoms of inconvenience were observed. May 3, at four p. m. the animal swallowed the same dose, in the same manner as before, and was similarly watched, but no observable effects were produced by it. May 4, at four p. m. another pill, containing a quarter of a grain of strychnia, was administered. The animal was watched till seven o'clock (three

hours after having taken the pill), but no symptoms of its having taken effect were observed. May 5th, ten a. m. : on visiting the dog, with the intention of giving him food, he was found lying on his side, quite dead and cold; his limbs stiff and extended. A quantity of frothy mucus adhered to his mouth. His jaws were so firmly closed, that considerable difficulty was experienced in forcing open his mouth, the muscles, generally, were in a spastic state.

Sectio cadaveris, four p. m.—External appearances: the limbs were in a state of spastic rigidity. The *brain*, although rather gorged with blood, was not equally so with the preceding subject. The choroid plexus congested and dark-colored. No effusion in the ventricles. Of the pia mater, some of the inflexions following the convolutions of the brain were very vascular. An hydatid was found in the inferior horn of the right lateral ventricle.

Spine.—On opening the osseous canal of the spine, no effusion appeared to have taken place between the membranes of the spinal marrow. The surface, however, of the pia mater, about the cervical and upper dorsal vertebræ, was vascular. The structure of the cord itself was healthy, excepting that the lumbar portion was rather softer than the upper.

The Thorax.—The lungs, on both sides of the thorax, were collapsed, dark-colored, and gorged with blood, and barely buoyant in water. The trachea, internally, was of a bright pink color, and coated throughout its ramifications with a frothy mucus. The pericardium exhibited an inflammatory blush, together with recent depositions of lymph both on the reflected and proper surfaces of the membrane. The heart contained no coagula in its cavities, neither did the large veins or arteries. The heart was distended with dark blood; the blood had an unctuous appearance.

Abdomen.—*Stomach*: its villous coat along the greater curvature was softened, and of a brownish color.

Intestines.—In the duodenum, softening of the mucous coat, with two or three ulcerated patches, was observed; in the ileum, particularly at its junction with the cæcum, ulcerations, having pits or foveæ, like the depressions on the rind of a rough or coarse orange, were conspicuous. The colon throughout was studded with small prominent elevations, each having a depression at the apex, and not unlike the immatured pustules of small pox. This eruptive appearance was more particularly observable about the appendix vermiformis and rectum. The aggregate and solitary mucous glands of the intestines were undoubtedly the seats of this appearance."

"As a candid inquirer after truth," says Dr. Booth, "the preceding facts and observations have irresistibly impressed my mind with a conviction of the fallacy of the hypothetical doctrines, according to which an entire class of vegetable poisons (the bitter strychnos) is said to possess the singular property of expending, through the medium of the circulation, their influence on the spinal marrow, without directly involving the functions of the brain, or uncombined with any injury of that organ. Paris's Pharm. (Ed. vi.) vol. i. p. 24. Christison on Poisons. (Ed. ii. p. 754.) The action of strychnia on the spine is represented as even quite *independent* of any action on the brain, 'if, indeed, such action exist at all.' (Christison on Poisons, 2d ed. p. 19.) To the same effect Orfila has recorded the result of an experiment (on Poisons, vol 2, p. 270, 2d edit.), but I may venture to observe, that the very irritation itself consequent on dividing the spinal marrow of animals, will keep up spasmodic action; and that, with respect to indications of the state of the brain during such experiments, we do not possess adequate criteria by which we can, in animals, satisfactorily determine the fact. In man, however, we have indisputable means of assuring ourselves of the participation of the brain in the energetic influence exerted by strychnia on the spinal marrow and its nerves. The representations made by the patients themselves, almost uniformly, of their suffering pain in the head, and vertigo, *previously* to the invasion of the spinal convulsions, and during those convulsions; the palpable indications afforded of the nerves supplied by the brain being affected in the nictitation of twitching of the eye-lids, and agitation of the muscles of the countenance, from clonic spasm, collectively demonstrate the influence of the alkali on the brain itself. This very day I had occasion to observe the existence of the cerebral influence of strychnia,

in a patient affected with hysteric-paraplegia, for fifteen minutes *before* any indications of the specific spinal effects of the alkali supervened. The patient is, at present, taking forty-two drops of the tincture of strychnia every six hours. She has been under a course of the medicine during seven weeks, beginning, originally, with thirty drops, and I am happy to say that she has derived the *most striking advantage* from its cautious and persevering use, far surpassing, in a very obstinate and perplexing case, *the effect of every other varied method of treatment.*" The more immediate object in my view, when citing this case, is the perfect illustration it affords of the absolute influence of strychnia on the brain, as well as on the spinal marrow; for the former has uniformly preceded, and has, sometimes, even not been succeeded by the specific manifestations of the latter species of influence.

With regard to the mode of employing strychnia as a medicine, Dr. Bardsley says—"In the *internal* administration of strychnia, I have mostly commenced with one-sixth of a grain twice daily, and this proportion has been gradually increased to half a grain or a grain at the same intervals; but half a grain of the alkali, taken three times in the day, has generally produced sufficiently energetic effects upon the system. In the *external* use of the alkali, I have been in the habit of directing one fourth of a grain to be sprinkled on the blistered surface, night and morning, and the quantity has been increased to half a grain, a grain and a half, and two grains, applied twice in the day."

DR. T. GREEN ON THE TREATMENT OF SYPHILIS WITHOUT MERCURY.

This paper is chiefly a digest of the remarks of some of the ablest advocates for the non-mercurial treatment of syphilis. We could have wished the author had given us more of the details of his own experience; but as it is, the paper is valuable as a summary of the best information that can at present be collected on the subject. The following protest against the supposed specific virtues of mercury in venereal, is worth giving at length:—

"While all the facts I have now mentioned prove that syphilis can be cured without mercury, I do not, for a moment, contend that its use should be abandoned altogether in the treatment of venereal complaints. Mercury should be given in these complaints, with the same intention as if precisely similar symptoms occurred from any other cause. The well known power of mercury, when used cautiously and moderately, to improve the general health, to remove chronic inflammations, and diseases of an indolent kind, indicates its use, in some few cases, for the symptoms of syphilis, as if they occurred from any other disease, without reference to any *specific character*. While I admit its use in some cases of syphilis, not for a moment *as a specific*, but on the general principles above stated, I contend that the cases requiring it are but few; a very large proportion of venereal diseases can be as well, if not better, cured without mercury, and *certainly more safely*, because the risk is not incurred of producing the truly melancholy results, which, in some constitutions, follow the treatment of syphilis with this mineral. I think its use, in primary symptoms, should be given up altogether, at least until there appears some indication for its employment. It cannot now be maintained that a chancre is cured one day sooner where mercury is given, than where it is not; as far as any comparison of evidence goes, it would appear that these sores are sooner cured where mercury is not given. If this be true, we gain nothing by using this remedy, and incur the risk of inflicting a severe injury on the patient, as every practical surgeon knows well, that chancres do sometimes assume a gangrenous and phagedenic character under the mercurial irritation, occasionally ending in the loss of a portion, or the whole, of the penis, before the destructive processes can be arrested. The only intention with which mercury can be given, in this stage of the disease, is to prevent the introduction of the venereal poison into the system. But, has mercury this preventive influence? Unfortunately, the history of the venereal disease, under the most full and efficient mercurial treatment, proves that it has no such power. It is too well known, that if mercury succeeds once in preventing secondary symptoms, it fails altogether, in too many instances to allow us to place reliance on it as a preventive of constitutional symptoms. It is certain that secondary symptoms occur whether mercury be given or not; but whether they follow more frequently in the one case or the other, is, as yet, entirely undecided."

In iritis alone, when it occurs as a secondary symptom, is mercury indispensable—not, however, as the author takes care to add, as an antidote to any venereal virus, but to arrest the effects of inflammation in the eye; and, says Dr. Green, in conclusion—“While I have endeavored to prove that mercury is not a *specific* for syphilis, I admit, to the fullest extent, its value in the treatment of other diseases. Those only who have tried this powerful remedy in inflammations of the head, chest, or abdomen, in iritis, in chronic enlargements of the testicle, &c., or as a discutient, wherever thickening or induration is to be removed, can be fully aware of its value. I think the better we become acquainted with the effects of mercury, the more shall we resort to it in other complaints, the less so in venereal diseases.”

In an elaborate paper *On Chronic Peritoneal Inflammation, and its Treatment*, by Mr. E. Thomson, of Whitehaven, we have the opinions of all the most eminent ancient and modern authorities on the complaint; together with the experience of the author, set forth in a series of cases, tending to prove the superior efficacy of mercury as a remedy for it. Mr. T. says—

“I have thus presented to the society a variety of cases, in proof of the peculiar effect of mercury in an affection allowed to be of the most dangerous character. The cases have been selected from amongst a great number, to elucidate particular views advanced in the remarks. That there is no remedy yet known equal to mercury, in the cure of this disease, I think must be admitted; and as it may be employed in all stages of the affection, without the slightest danger, it is one deserving of farther confidence than it has yet received. Respecting the exhibition of mercury, I can state, from the extensive employment of it, that I have never witnessed any affection of the bones, &c. produced by it, unless the system had been affected with the venereal disease previously; and I cannot resist, in this place, offering the meed of praise to Dr. Musgrave, for being the promulgator of so valuable a fact.”

Case of Lithotomy by the Rectum; by Mr. Dawson, surgeon to the Liverpool infirmary, &c. This case we shall lay before the reader in a very slightly abridged form.

“Robert Cox, nearly three years and a half old, of diminutive form and sickly aspect, was admitted into the Liverpool infirmary in January 1832.

“The history of this child’s sufferings, during the past six months, was detailed by his father; and it was sufficiently distressing to lead to the belief of the presence of a stone in the bladder. After a few days of repose, the sound was passed, but no calculus could then be detected. The urethra was found to be short and very narrow, admitting with difficulty the smallest instrument. The bony outlet of the pelvis was deformed; the space left between the conjoined pubic and ischiatic branches being narrowed to a degree I had never before witnessed; this space, by admeasurement, not exceeding one-third of an inch; the course of these branches, to within one quarter of an inch in front of the anus, was nearly parallel; from this point into the tuberosities their divergence was abrupt, leaving ample space for the anus itself.

“Rigors, nausea, and complete prostration of strength, were the immediate result of this search, as indeed, they were of every subsequent one. It is scarcely requisite to state, that these examinations were invariably conducted with all due care and gentleness, or that sufficiently protracted intervals of repose were always allowed for the purpose.

“The act of passing his urine was succeeded by a state of weakness bordering on syncope, by the eversion of the lining membrane of the rectum, and by the escape of its contents.

“After remaining in the infirmary for a few weeks, during which period the search for a foreign body was renewed, but in vain, he was sent home to his parents, in the hopes that, by their soothing attentions, his general health, which was by no means in a satisfactory state, might be improved, and in the expectation, also, that a little further delay might unfold, and thence enable me to detect, some tangible, or at least, some intelligible, cause for his hitherto unmitigated sufferings. On his return, however, in five months afterwards, he was in no respect improved.

“His mother had entirely neglected him; she had allowed the anus to remain in a state of prolapse nearly all this time, so that the exposed mucous membrane had acquired a deep purple

tint, was beset with excoriations and ulcerations, and presented, altogether, a very menacing appearance.

“Some pause was necessary, in order to bring the part into a condition to bear any future exploration.

“Taking advantage of a tranquil state of the rectum, I passed the finger, when its point was abruptly met, about half an inch within (or beyond) the fibres of the sphincter ani, by a bulging downwards, in a pouch like form, of the upper wall of the rectum, through which membrane could be felt, but not very distinctly, the outline of a solid, and hence, probably, a foreign body, of about the size of a large Spanish olive, which appeared to be firmly seated in its novel situation.

“The bladder was forthwith sounded, when the instrument struck against a stone. The foreign body sustained by, and felt through, the medium of the anterior wall of the rectum, was hence satisfactorily identified with the calculus just detected in the bladder. Here, then, was an instance of sacculated stone. It is useless to inquire whether the pouch was a congenital or an accidental formation. One thing seemed to be certain, viz. that owing to the extreme narrowness of the bony outlet, the calculus was inaccessible by the usual lateral operation; indeed, I feared, at one time, it might be so by any other route.

“By the division, in a semi-lunar form, of the structures lying in front of the anus—that is, with the concavity of the incision looking downwards, and by a corresponding bilateral section of the imperfectly formed and compressed prostate gland, I might be enabled to approach the stone, but it would be almost impossible to extract it, without inflicting a degree of injury on that gland, and on its important connexions, that appeared to me to be unwarrantable. And then, with the division upwards (according to M. Sanson’s method), of the fibres of the sphincter ani, of a portion of the anterior wall of the rectum, of the prostate gland, and of the neck of the bladder itself, I feared there must be associated the hazard, not only of forming a permanent communication between the bladder and the rectum, but also that of a loss of power in the sphincter ani; and, lastly, of dangerous infiltration of urine.

“It was manifest that, in approaching the concretion by this route, nothing need be divided but the anterior wall of the rectum, along with the lower fundus of the bladder lying in contact with it; the division of these investments might be made exactly in the median line, and to a limited extent, so as to leave, untouched, the sphincter ani in front; the undeveloped vesiculæ, and the terminations of the vasa deferentia on each side; and, I did venture to hope, the important fold of the peritoneum, should it also happen to form a part of the posterior face of the sac. The misery resulting from a permanent communication between the two outlets, seemed, in every way, unavoidable. But the grave anatomical objection remained, viz. how near to the base of the prostate gland might the reflected fold of the peritoneum advance; since, on the possibility, or otherwise, of its avoidance, the safety or danger of my patient depended.

“My colleagues, indeed, with their wonted kindness, endeavored to assure me that my apprehensions of danger, from this quarter, would prove to be groundless; it was a possible contingency, certainly, that, in the event of this important fold of the peritoneum being dragged down so far as to be implicated in the formation of the posterior boundary wall of the sac, still all communication with the abdominal cavity might be closed, by the adhesion of its contiguous surfaces, or by the interposition of plastic lymph, so that, should its division be unavoidable, the danger of opening a way into the serous membrane might not be the result: and, lastly, I was repeatedly reminded, that children bear these things wonderfully well. I determined, therefore, to operate, whenever he should be brought into a state of health that would justify such a procedure: his present weak and irritable condition, however, forbade any immediate operative measures.

“The agony he suffered in passing his urine, was estimated by the cold sweat and by the paleness of countenance that always accompanied this act, which might be termed the “paroxysm of expulsion.” He was not very likely to recover his health under these distressing

circumstances, and every form of narcotic remedy was unsparingly, but unavailingly, administered. At length a very simple remedy was found to answer, viz. the introduction at stated intervals of an elastic gum catheter, which had been prepared so as to retain a permanent curve, without the wire, and which was always thus used. His nurse became so expert in the employment of the instrument, that no other aid was ever required. From this moment pain and spasm ceased, as far as the expulsion of urine was concerned, and they never afterwards returned.

“My attention was now directed to prepare the rectum for the presence of a new and exasperating secretion; which was likely to be a work of time and of difficulty. I did not apprehend any serious inconvenience would result from the reflux of the urine, along with the feces, into the bladder.

“Every variety of astringent, and of sedative injection, was used, but each was abandoned, in its turn, as worse than useless. At last, the injection of cold water alone was found to fulfill every indication; it appeared to soothe the mucous membrane better than any thing else. Twice every twenty-four hours the rectum was filled with it, and the decided comfort the child experienced was very soon made evident in his improved appearance. The bowel, in losing its irritability, entirely recovered its healthful tone and function, and among other beneficial results, he got rid of a chronic diarrhœa, to which he had been liable.

“In the space of a few months he had become stout, florid, and cheerful, and was, in fact, in more robust health than he had ever before been. Weeks and months were allowed thus to pass away, the child seeming too happy to be disturbed, and I was in no haste to interfere with the comforts he was now enjoying. Indeed, could the same degree of attention have been afforded him in all future time, the question might have arisen, whether any operation at all was justifiable? But of this there was no chance, and the operation was undertaken in January, 1833.

“*The operation.*—He was bound by no ligatures. The nurse supported him on a pillow on her lap, in the usual position. A gum lancet having its anterior edge rounded and very keen, was laid flat on the finger, which, thus armed and oiled, was introduced through the anus, so as to reach a point a short distance beyond the recto-vesical pouch, when its edge was turned upwards, and a decided cut made, by drawing the instrument from behind, forwards, in the median line, through the walls of the pouch, and up to the stone, on the hard surface of which the edge of the lancet was distinctly felt to grate.

“I may mention, that the back part of the blade of the instrument was blunted, which allowed the point of the finger to project beyond it, and which was thus at liberty to direct, as well as to execute, the intended incision. After pausing a few moments, to allow time for the retraction of the divided structures, the finger was again passed, when the calculus was felt to be entangled among a mesh of elastic fibres; hence a second section became necessary, in effecting which the speculum was employed.

“The calculus was now found seated in the upper or vesical region of the sac, whence, having been displaced by the finger, it fell into the rectum, from among the valvular folds of which, after eluding the attempt once or twice, it was finally withdrawn by the help of Pellier’s double silver wire, which served the purpose of scoop and lever. No blood was lost. The operation lasted nearly five minutes.

“The calculus was found to be much smaller than we had been led to expect. I have omitted to state that, during the operation, a quantity of hardened or dried mucus escaped, along with the feces, through the sphincter ani; it resembled, in form, the peeled skin of a small apple, and it struck us at the moment that this substance might have been coiled round the lower moiety of the concretion, something after the manner of the cup of the acorn, and might, in this way, have added to its apparent magnitude.

“The child passed two liquid stools on the day of the operation, in each of which a clot of blood was found, equal in quantity to about two drams. He passed a very tranquil night. During the four succeeding days the evacuations from the rectum were chiefly made up of

urine. About this period of the after-treatment, 'Clot Bey' visited our infirmary; he expressed great interest about the child, but he gave me no hope whatever of the ultimate closure of the communication between the two outlets. A very slight degree of tenderness was detected, on pressure, at the lower part of the abdomen, on the second day after the operation; but this was very promptly and properly treated by the house-surgeon, Mr. Simon, and no more was heard of it afterwards. On each succeeding day two liquid motions were passed, the urinous admixture being always perceptible in them; the anus, however, remained free from the slightest appearance of excoriation.

"And now was experienced the benefit of the sphincter ani. The control exercised by the fibres of that muscle kept him clean and dry. It was only when the desire to empty the bowel came on with too much suddenness and urgency to allow time for the bed-pan to be placed under him, that his bed-clothes or body-linen were at all stained by the excretions.

"On the tenth day from that of the operation, to my surprise and delight, I found he had passed his urine, to the amount of four ounces, in a full stream through the penis; it was voided without pain, or straining, or spasm. After this no urine was ever detected in the evacuations.

"The calculus, twenty-four hours after extraction, and spontaneously dried, weighed just sixty grains. A few particles had been separated in the operation. It consisted, externally, of ammoniaco-magnesian-phosphate. The internal part, when seen, consisted of phosphate of lime."

LECTURE, BY DR. RYAN, AT THE WESTMINSTER DISPENSARY, 1833.

Rules for the use of Therapeutics in Diseases of Infants—Purgatives—Anodynes and Soothing Syrups—Emetics—Aromatics—Absorbents—Antacids—Saline Medicines—Blisters—Irritants—Mustard Poultices and Fomentations—Antimonial and Stimulating Ointments and Liniments—Blood-Letting—Venesection—Leeching—Cupping and Dry-Cupping.

GENTLEMEN,—I shall now direct your attention to the precautions necessary in applying our remedial agents to the diseases of infants and children. It may be laid down as a general proposition, that a very small number of medicines are employed by the most experienced practitioners in the complaints of early life. Sydenham considered that weakness and ascension of the stomach were the predisposing cause of the diseases of infants; and, to correct these, he used two remedies in his practice,—infusion of rhubarb and animal sal volatile. Harris maintained that ascension in the bowels was the cause of almost all infantile complaints, and seldom prescribed any remedy but crabs' eyes. Armstrong held that increased mucous secretion of the intestinal canal was the chief causes of diseases in early life, and preferred ipecacuanha. Others, who considered the glandular and secretory systems most commonly affected, introduced mercury. The eastern practitioners were of opinion that theriacs, which consisted of a variety of aromatic medicines, were indispensably necessary to fortify the system. It was only within a short period that a correct pathology and treatment of infantile diseases were determined.

In the year 1777, the French government ordered a small box of medicines; with instructions for their use, to be arranged, and transmitted to the remote parts of the kingdom. This order confided their choice and preparation to M. Lasonne, and their distribution to M. Lenoir. M. Guenet was deputed to prepare a small book on the diseases of infants at the breast, which was inclosed in each little medicine chest. This beneficial order led to the happiest results. The magistrates in the departments superintended the distribution of the works and medicines, and, according to M. Leroy, were the means of preserving more than twenty millions of infants, who would have perished through ignorance or the want of medicines.—(*Medecine Maternelle*.)

An order of this kind is unnecessary in this kingdom, as a humane public secures the best medical aid to the poorer classes of society. But in remote parts of the country, where

medical advice cannot always be obtained, and where there is a young family, it would be advisable to have a few medicines for domestic use. These should principally be cathartics, and a few others, which I shall mention; but parents ought never attempt to treat the diseases of their children, unless when medical aid cannot be procured. They never should employ patent medicines, such as Dalby's Carminative, Godfrey's Cordial, soothing syrups for hastening the cutting of the teeth, or quack medicines of any sort. All these are dangerous in the hands of private individuals, are pretended cures for a variety of different diseases, and are not used by educated members of the medical profession, who are unacquainted with their component parts, and consequently would do an act of injustice to their patients and to their own reputation, by substituting unknown for efficacious remedies. There is no fact better established than that a vast number of delicate children are annually destroyed by the use of narcotics under the title of soothing syrups.

I have already noticed the difficulty of distinguishing their diseases, even by the most experienced practitioners; and hence the danger of parents and nurses attempting to treat them.

Let us now consider the medicines most commonly employed in the treatment of the diseases of children.

Purgatives.—The principal purgatives used for infants and children, are manna, castor oil, rhubarb, magnesia, senna leaves (infused), calomel, Epsom and Rochelle salts, jalap, scammony, aloes, camboge, and sometimes elaterium.

New-born infants are generally purged with manna or castor oil; and nurses also use sugar and butter, or what they suppose to be syrup of violets, which is not now kept in the shops. When the mother has breast milk, there is no need of exhibiting aperient medicines to the new-born infant.

A small piece of manna, dissolved in warm milk, or half a tea-spoonful of castor oil, is the best aperient for a new-born infant. The French employ a syrup of chicory, the active ingredient of which is rhubarb.

I have already stated that it is impossible to fix the doses of medicines for infants, who differ in vigor and constitution; and the best rule is that we should always exhibit an under dose, and repeat it, if necessary.

As most children are fed with artificial and improper aliments, as pap, gruel, &c. besides the breast, ninety-nine in a hundred of them labor under irritation in the digestive tube,—the stomach and bowels; and, under such condition, purgatives, which aggravate the mischief, must be administered with caution and judgment.

Gastric and intestinal irritation generally exist when an infant suffers from hiccup, griping, flatulency, curdled or green motions, or when it is two, three, or five years of age, and craves for cold drink, picks its nose or lips, and has alvine motions of a dark green, white, or black color. When these symptoms are present it would be highly improper to administer senna, jalap, scammony, camboge, or elaterium; manna, castor oil, magnesia, rhubarb, and calomel, combined with aromatic powder, are the best remedies. If the former were administered they would probably induce inflammation, ulceration, or softening of the coats of the stomach and bowels, and most likely destroy life. The antimonial medicines, as the wine of this name, tartarised antimony, or tartar emetic, James's powder, antimonial powder, the oxide of antimony, and the powder or wine of ipecacuanha or hippo, are also contra-indicated and dangerous.

When an infant's motions are unhealthy or depraved during the first year of its life, castor oil, rhubarb and magnesia, rhubarb and calomel, with aromatic powder and loaf sugar, are the best aperients. The doses must depend on the strength of the infant. Let us suppose it is healthful and ordinarily developed for its age: it may be ordered a tea-spoonful of castor oil alone, or combined with a drop or two of oil of aniseeds to prevent griping; or three grains of rhubarb, five of calcined or carbonate of magnesia, three of aromatic powder to prevent griping, and ten grains of finely powdered loaf sugar; or the same proportions, omitting the rhubarb or magnesia, and substituting one grain of calomel. Any of these powders is best administered in honey, jelly, treacle, sweetened gruel, arrow-root, or some other thick fluid. The

dose may be repeated every four or six hours until it operates. One dose is sufficient in general; and in all cases there is danger that diarrhœa may be induced. Great caution is always necessary on this account.

Calomel is now a favorite purgative for infants, especially with those of the intestinal school, who refer every disease to derangement of the stomach and liver. Dr. Underwood was the first who exhibited it to children. He states, that he never saw it produce bad effects. It has long been observed that this or any preparation of mercury very rarely causes salivation in children, though it has been given to the amount of 130 grains in croup by a very venerable and celebrated Professor, Dr. Hamilton of Edinburgh. Nevertheless, it should not be frequently repeated alone as a purgative in ordinary health, as it renders the body extremely susceptible of the influence of cold, and predisposes to inflammation or congestion of the organs in the head, chest, and abdomen.

It is also to be remembered, that though calomel or other preparations of mercury very rarely induce salivation, even in the largest doses, numerous cases are on record, in which mercury caused ulceration and mortification of the gums and cheeks, which proved fatal. I heard of a case of hydrocephalus in which calomel was continued so long as to cause mortification of the whole of the integuments of the lower jaw, and finally a total separation of this bone from the upper jaw; and what was still as remarkable, the practitioner congratulated himself on the excellence of his treatment! I need scarcely state that the unfortunate infant died a most miserable and deformed object.

Gangrene of the gums or cheek is comparatively of rare occurrence; but it may, for anything we can foresee, happen in any individual case. The late Dr. Clarke had observed salivation in three cases only, under three years of age, and his practice was the most extensive in diseases of women and children.

Calomel is often given to children who refuse other medicines, as it is tasteless, and may be administered in a very small bulk, combined with honey, jelly, or mixed with butter and sugar and spread on bread. When continued for several days, it renders the evacuations from the bowels of a green color, and of a slimy appearance. It stimulates the liver and the glands of the bowels, it diminishes the action of the heart and arteries, and supersedes blood-letting in certain cases. It is, however, a most valuable remedy when given in small doses morning and evening, combined with aperients as above mentioned, in cases in which the alvine evacuations are of a brown or dark color, and extremely fetid, as we often observe, from the age of one to five years. In such cases the liver is not acting properly, as it is well known that good bile gives the yellow color to the feces. It may be ordered as follows in such instances, and the quantities increased according to the strength and constitution of the infant: calomel six grains, rhubarb twenty grains, aromatic powder ten grains, sugar thirty grains, to be mixed intimately and divided into six papers or packets, one of which is to be taken morning and evening, unless it acts more than twice on the bowels. When the motions are brown, the hydrargyrum cum creta, or mercury with chalk, which is a milder and safer preparation than calomel, may be substituted for it in the above prescription. One, two, or three packets will, in most cases, restore the motions to the healthful yellow color. As there is generally irritation in some part of the mucous lining of the bowels in such cases, the diet should be mild and nutritious, as arrow root, sago—gravy with either—or mashed potato, &c.; but solid animal food should be avoided. When these powders are necessary, the infant should be carefully preserved from cold in winter and spring. During the first three months of life, the dose of calomel, as a purgative, is from half a grain to a grain; under the first year, from one to two grains; from the second to the fifth year, from three to four grains; and from the fifth to the seventh year, not more than four or five grains. The dose should be smaller when the constitution is delicate. It should not be given alone as a purgative, and it often acts violently in four or five grain doses even on adults.

The stronger purgatives are sometimes required for new-born infants. These must be administered with the greatest caution; so much as three tea-spoonsful of castor oil, four grains

of calomel, and ten of rhubarb, have been given without the desired effect. It is an admirable axiom, that in all diseases we should use the mildest remedies first, and when these fail, have recourse to the more powerful ones.

Rhubarb has long been a favorite purgative for children. Sydenham first introduced it into vogue, and considered it almost an universal remedy in diseases of infants. In France they make a syrup of the extract of rhubarb and chicory, which is a favorite aperient for new-born infants. Sydenham infused it in water, and ordered it to be administered with wine. M. Leroy imitated his example. Most practitioners prefer the tincture, though many still employ the infusion and extract. The powder is generally ordered as an aperient for children; and it is usually combined with magnesia, and aromatic powder, or ginger, as already stated. It is a safe and valuable medicine, and often stops diarrhœa when mild. It is also added to saline medicines, such as Epsom salts, and causes it to act mildly and efficiently. Rhubarb has fallen somewhat into disuse of late years, in consequence of its variable effects; but this arises from its being often adulterated with two or three parts of turmeric. Nevertheless, there is scarcely any remedy so generally employed in the treatment of the diseases of children from one to five years old. From the age of three to seven years, the infusion of senna with ginger, sweetened with sugar, and mixed with milk, is given like tea without detection, and is a safe and excellent purgative. A few grains of ginger should be mixed with the senna leaves before infusion, to prevent griping or intestinal irritation. The saline purgatives, such as Epsom salts, Rochelle and Glauber salts, are now very rarely exhibited to children. They are very unpleasant to the taste, and are not better than other aperients. Rochelle salts is sometimes added to veal broth prepared without common salt, and is divested of its taste. Few children could be prevailed upon to take any of the saline remedies. They in general dislike medicines, and therefore we must select those which are most free from taste and odor, and sweeten them whenever we can. There is a great difficulty in getting children to take medicines of any kind, and life is often sacrificed in consequence. If we reason kindly with a child who has any degree of sense, and if we give him some reward, he will show his tongue, take medicine, and even hold out his arm to be bled in some instances. When life is in danger, and persuasion has failed, compulsion is necessary, and this may be effected by closing the nostrils and holding the hands, inclining the body horizontally, when any medicine placed in the mouth must be swallowed. Parents do not act harshly by having recourse to these means, however disagreeable to their feelings, for the preservation of their children. The temper of children becomes irritable and changed during disease; they are generally peevish, refuse to remain in bed, or to be kept sufficiently warm in the arms of the nurse, by means of a shawl or blanket. They are often seized with inflammation of the lungs, which may be relieved by leeching, &c. but will lay the foundation of consumption or asthma. Few children permit a sufficient examination of their complaints, without their fears and passions being excited, and this arises from the injudicious conduct of parents in threatening them, when they require correction, to send for the doctor to bleed them or give them medicine. Every practitioner will acknowledge that it is of the greatest advantage to administer medicine as early as possible, as life may be saved by the timely use of an aperient, an anodyne, a warm-bath, or leeches to the head or chest.

Calomel, rhubarb, jalap, scammony, and camboge, are ordered in extreme cases of constipation, when milder means fail, and also in cases of worms or dropsy. The various formulæ will be given under the treatment of the diseases.

Elaterium is seldom ordered for children; but I have heard of a child under four years of age, who was supposed to be dying of anasarca and ascites after scarlatina, and who was ordered two grains of elaterium in divided doses in five or six hours, which caused twenty watery motions from the bowels, and completely cured the dropsy in the limbs and abdomen. The practice should be adopted, however, with great caution. Clysters are sometimes necessary, but the cases which will require them will be described hereafter.

Anodynes—Narcotics.—Parents and nurses destroy a great number of infants by anodynes,

such as laudanum, syrup of white poppy, formerly called diacodium, Godfrey's Cordial, Dalby's Carminative, and various soothing syrups; every one of which should be excluded from the nursery medicine chests when medical advice can be obtained. These remedies are given, however, by almost every mother and nurse to allay pain and produce sleep. All medical practitioners are unanimous in the opinion, that this class of medicines requires the greatest caution and skill in their administration. The mortality of infants caused by anodynes is incalculable. It was immense during the last century in some foundling hospitals, and is still considerable, in consequence of the universal custom among mothers, wet-nurses, and those who have the care of infants, of exhibiting soothing syrups.

"Nothing" says the late Dr. John Clarke, in his commentaries on the diseases of children, "is more uncertain than the effects of opium on young subjects, and it ought never to be employed, even by medical men, except with the greatest caution, as it sometimes acts with much violence, and has proved deleterious even in very small doses. Half a dram of genuine syrup of white poppies, and in some instances a few drops of Dalby's Carminative, have proved fatal in the course of a very few hours to young infants." The practice of exhibiting anodynes to children is not new. Harris alludes to it two centuries since, and remarks that it swelled the dead, and rid those who had the care of infants of further trouble. Hoffman states that he had seen children laboring under epilepsy and stupor from the use of diacodium and other narcotics. The late Mr. Haden, in his excellent and popular work on the diseases of children, states, that one grain of Dover's powder, which contains but one-tenth of a grain of opium, proved fatal to an infant; and he mentions another case in which one-sixth of a grain caused sleep for two days; he relates a third case of a child who was destroyed by one dram of syrup of poppies; and he was called to a fourth case, in which half a drop of laudanum had narcotised a child affected with diarrhœa. He observes, in conclusion, that opium and all narcotics should be prescribed by medical practitioners only. I might quote many other writers in support of this opinion, that the greatest caution and skill are requisite in medical practitioners when prescribing opiates for infants. I shall now state the result of my own observation and experience. My testimony is entirely in attestation of the truth of the preceding statements. The greatest caution, skill, and judgment, are required in prescribing anodynes for infants. I have known a tea-spoonful of a mixture composed of one drop of laudanum and an ounce of simple syrup, narcotise a new-born infant. There is scarcely a week in which I have not observed infants under the influence of an over dose of some soothing syrup or other, at the dispensaries which I attend. Mothers usually deny, at first, having used any such remedy, but, when pressed, they confess it with fear and alarm. When an infant is stupified for six, twelve, or twenty-four hours, its breathing becomes laborious, there is a determination of blood to the head, or a predisposition to "water in the head," it cannot awake to take food, absorption goes on, and rapid emaciation, great debility, and death are the ordinary consequences. It has been long observed by medical practitioners that infants, dosed with anodynes, seldom thrive, are generally feeble, and are usually destroyed by some disease peculiar to them before the fifth year. The digestion is impaired and destroyed by a constant use of narcotics in infants and children, as well as in adults. Those in the habit of taking opium afford ample evidence of the truth of this position.

During the first month of infantile life, a mixture, composed of two table-spoonsful, that is, an ounce of simple syrup, and two drops of laudanum, or ten drops of syrup of poppies, may be given in the dose of a moderate sized tea-spoonful, every two or three hours, until the infant ceases to scream, or falls asleep. In either case the dose should not be repeated for some hours, unless pain or restlessness returns.

I have known cases in which four drops of syrup of poppies, given to a vigorous infant of five months old with some sugar and milk, induced sleep in less than a minute. About this age, infants suffer more or less from teething, their bowels are disordered, and their sleep is disturbed. These symptoms occur, in most cases from errors in diet and physical education, and require the use of anodynes, combined with carminatives. In such instances, the following

combination, or one very similar to it, is generally prescribed by obstetricians:—dill water, an ounce; calcined magnesia, a scruple; loaf sugar, three drams; oil of aniseseed, four or six drops; syrup of white poppies, half a dram; dose a tea-spoonful three or four times a day. If this should act as a sedative, and cause sleep, we may substitute two drops of the sedative solution of opium, or four drops of laudanum tincture of opium. The dose may be repeated until relief is obtained, or sleep be produced.

Anodynes are also useful when children are affected with troublesome frequent cough, unattended by wheezing, flushing of the face, and dependent upon irritation in the throat, caused by exposure to cold. In such cases we prescribe mucilage of acacia, or gum arabic, eight drams; syrup or oxymel of squills, one dram; compound tincture of opium, or paregoric, half a dram; sugar, or simple syrup, two drams and a half; a tea-spoonful may be given every hour, until it causes drowsiness, and then it is to be discontinued until this goes away. When the cough is very urgent, we may add one drop of hydrocyanic (prussic) acid to this mixture with advantage, as this is a powerful sedative, and possesses great power in controlling laborious or spasmodic respiration. I have repeatedly added two drops of this acid to the mixture in cases of inflammation of the lungs or their lining membrane (bronchitis) with the happiest results, after leeching, emetics, blistering, and warm bathing had failed. I remember a case to which I was called by my friend Mr. Hughes, of Holborn,—the infant of Mrs. B——, in which we used this quantity of hydrocyanic acid, and ordered a tea-spoonful of the mixture containing it every hour, until the breathing was relieved. I have employed this combination in a vast number of similar cases, and also in whooping-cough, with advantage. Great care is necessary to discontinue the medicine as soon as relief is obtained.

Anodynes are also beneficial in diarrhœa of infants. The following mixture is generally efficacious; but there are cases in which more powerful astringents are necessary:—chalk mixture, three ounces; syrup of poppies and aromatic confection, of each one dram; loaf sugar, two drams; oil of aniseseed, four or six drops; dose, a tea-spoonful, three or four times a day, or in bad cases, after each motion. In violent cases, in which there are ten, twenty, or thirty motions in one day, it will be necessary to add three drams of tincture of catechu, and one dram of extract of logwood to this mixture.

Emetics.—The emetics usually employed in diseases of children are, antimonial wine, ipecacuan or hippo wine, or tartarized antimony (tartar emetic), or powder of ipecacuan in water, in the proportion of one grain to the ounce of water or syrup. These medicines are contra-indicated when there is irritation in the stomach evinced by hiccup or vomiting; and in the bowels, indicated by diarrhœa, black, brown, white, green, or any colored motions, unless yellow. Antimonial emetics produce most irritation, and may readily induce inflammation, softening, or ulceration of the stomach, each of which will speedily end in death. Parents, especially among the lower classes of society, are too much in the habit of exhibiting emetics, and often do irreparable mischief. They never should employ them when medical advice can be obtained. Dr. Clarke has known a quarter of a grain of tartarized antimony excite vomiting and death of a child, which was previously in no danger. I have been told of a druggist, whose common fever powder for children is five or seven grains of tartarized antimony; he never weighs it, but guesses at it; and I need scarcely state, that any child who takes this quantity is poisoned, or rather murdered. It is melancholy to think that such ignorant men are allowed to prescribe and destroy human beings with impunity in the greatest nation on earth. Nevertheless, the fact is so.

It is also to be remembered, that, in cases of inflammation of the lungs in children, it is dangerous to urge tartarized antimony in proportionally large doses as in adults, on account of the liability of causing inflammation of the stomach. I shall read to you a letter from a former pupil of mine, who is now in Paris, giving the history of death, caused by repeated doses of tartarized antimony for inflammation of the lung, in a child of three years of age, which was written to me as corroborative of the validity of my opinion. Some late French writers, M. Trousseau, &c., have, however, used the oxide of antimony in cases of adults, with

invariable success, in similar cases, while others have as strongly condemned it, as inert and useless. M. Bouillaud observes in his clinical lecture, in April 1834, "the white oxide of antimony had been fairly tested, it did not produce vomiting or diarrhœa, and its effects were completely null."—(London Medical and Surgical Journal, No. 119, May 10, 1834, vol. 5, p. 473.)

The older practitioners ordered emetics much oftener than the moderns, and these very seldom employed them at all. The community, however, is still prejudiced in favor of these remedies, and it is therefore very desirable to point out their effects.

Dr. George Armstrong recommended ipecacuanha in almost every disease of children, while others advised antimonial wine as generally—both were in error. Antimonial medicines are still very much employed, in diseases of children and adults in this country; and it is the more necessary to inform the young practitioners of their comparative effects when injudiciously administered.

Aromatics.—The aromatics which are most generally used in the treatment of diseases of infants are, oils of aniseed, carraways, cloves, peppermint, aromatic powder, cinnamon, and ginger powders, and aromatic confection. These stimulate the muscular coats of the stomach and bowels, expel flatulency, and according to the majority of writers, prevent purgatives from causing griping. The aromatic powder, ginger, and aromatic confection, are also combined with drastic or powerful purgatives, such as scammony, aloes, camboge, calomel, and elaterium, to prevent their griping effects. Some practitioners deny that they possess this power; but if any one of these will take a full dose of any of these medicines, with and without the addition of aromatics, and report that he has suffered equally from griping, I shall freely give up my position.

Aromatics and carminatives are much used in different countries, combined with aliments, drinks and medicines. The ancient Greeks, according to Sonini, gave them to their children very freely; and, in this country, we use condiments, spices, and aromatics with our food, drink, and medicines. I feel convinced that the milder aromatics ought to be combined with such medicines as require them when prescribed for children.

Absorbents or Antacids.—Harris, who had great experience in the diseases of children, was of opinion that nearly all proceeded from acidity in the stomach and bowels; and he recommended earthy substances, as chalk, magnesia, &c. to neutralize this, and to form a mild aperient. It is well known that a tea-spoonful of magnesia and a tea-spoonful of lemon, or, in some cases, of orange juice, will form a neutral compound which will act as an aperient on many delicate persons who suffer from acidity of the stomach or indigestion. This class of medicines are mere palliatives, unless when other treatment is employed. The principal medicines of this class ordered for children are, calcined magnesia, prepared chalk, chalk rubbed into a powder with mercury (*hydrargyrum cum creta*), carbonates of soda and potass saturated with lemon juice or tartaric acid, in the forms of effervescing draughts or soda powders; carbonate of ammonia, &c. Quicksilver or mercury is triturated with chalk into a bluish powder, and, when combined with small doses of rhubarb or aromatic powder, is, in proper doses, one of the most effective and safe medicines when the motions from the bowels are unhealthy, when a child is feverish, picks its nose, is peevish, refuses every kind of food, and desires cold water, or some other cold drink. When these symptoms are present the disease is called infantile remittent fever, worm fever, fever from teeth, and "water in the head," by most mothers. The abdomen is enlarged, and the mesenteric glands are often affected.

Under such circumstances, we generally succeed, in a few days, in removing the fever, and restoring the motions to a yellow, healthful color, by the combination just mentioned. The disease is caused by improper diet or by dentition. It is caused by improper diet, because most families allow their children, from one to five years of age, to dine at the same table with themselves, and partake of the same food, which is injurious, for the following reasons:—Children are gluttons; they never masticate animal food sufficiently, whether they have teeth or not; they bolt their food, the gastric fluid in the stomach cannot soften or chimify it, the con-

sequence is, that it passes partially changed into the first portion of the bowel (duodenum), the bile is now mixed with it, but does not dissolve all of it or reduce it into chyle; it irritates the surface of the bowel, and the lacteals or absorbent vessels which pass to the glands in the mesentery, and on the thoracic duct which conveys the chyle or nutriment to the heart to be mixed with the blood; as the repetition of food renews the irritation in the lining membrane of the stomach and intestines, in the lacteal and mesenteric glands; irritation, inflammation, or ulceration of the bowels is the result, attended by fever; or the mesenteric glands enlarged, obstruct the passage of the chyle to the heart, and general emaciation follows. Parents are surprised at the voracious appetites of children laboring under mesenteric diseases, and at the emaciated appearance of their limbs and body, while the abdomen is swollen. The explanation is this,—nature demands food, but this is not conveyed through the mesenteric glands to the heart, a new supply of blood is cut off, the absorbents of every part are in action, and every part, except the mesenteric glands, which are composed of absorbents, emaciates. The emaciation is extreme before death, the features shrink, the eyes become prominent, and the visage either resembles that of old age or assumes an unearthly appearance. This has led the vulgar to imagine that their children had been “overlooked, bewitched, or replaced by some supernatural being, or by the diseased offspring of others.” The real nature of the disease in such cases is irritation, inflammation, or ulceration of a greater or less portion of the mucous or lining coat of the intestines, a disordered secretion of liver, and hence the depraved motions from the bowels. The best remedies are the hydrargyrum c. creta, or calomel in very small doses, combined with rhubarb, compound powder of chalk with opium, continued for ten or fifteen days successively; and then the judicious use of iodine both internally and externally will remove the enlargement of the mesenteric glands, as many of you can attest from ocular proof at the dispensaries which we attend together. The dose of the hydrargyrum c. creta, for an infant under a year old, is one or two grains combined with rhubarb, as already stated, night and morning. No medicine restores the bowels to a healthful state sooner than this, unless when the evacuations are black, and then calomel should be substituted for it in the preceding prescription.

Calcareous medicines, as lime water, the solution of the muriate of lime, &c. have been long exhibited in enlargements of the lymphatic system or glands, as in scrofula, rickets, &c. and these are now replaced by iodine and its preparations, which, when genuine, and judiciously administered, are astonishingly efficacious in every form of scrofula. The most ample attestations of the truth of this statement are daily afforded at St. John's Hospital and the Western Dispensary.

Saline Medicines.—The carbonate of soda, saturated with lemon-juice or tartaric acid, and sweetened, has successfully cured two children affected with purpura, after every other remedy had been tried at two public institutions in vain. I believe the neutral salts have great influence on the blood, though I cannot assent to the theory of Dr. Stevens.

Mr. Cameron, a naval surgeon, in his work on diet, lays claim to the priority of discovery as to the effects of saline medicines on the blood, and states that his patients who had been deprived of vegetables, who had become pale, and threatened with scurvy, acquired a florid or high complexion by the use of nitrate of potass or common nitre. I need scarcely observe that the neutral salts have been used in febrile and many other complaints from time immemorial. The world, however, is indebted to Sir Gilbert Blane, Bart., for the discovery of an effectual cure for sea-scurvy, to which purpura is so nearly allied. In cases of children predisposed to the latter disease, the use of ripe subacid fruits will be beneficial; but, in general, these should be sparingly allowed on account of the predisposition to ascendency, according to some, or irritation of the stomach and bowels, in the opinion of others in early life.

Blisters and Irritants.—I have stated on a former occasion that the skin of young infants and even of children, is extremely irritable and liable to be inflamed by the slightest external injury. A slight burn on the finger of a child may cause convulsions and death in a few hours. The bite of an insect—a gnat for example—on a young infant may excite inflammation in a few

minutes, and therefore we cannot be surprised that the irritation of a blister, a mustard fomentation or poultice, the antimonial ointment, or powerfully stimulating liniments, may rapidly induce violent inflammation in infants, and this has often been followed by mortification, sloughing, and death. The experienced part of the profession never allow a blister to remain on a young infant, or a child under five years of age, longer than three or four hours; in fact, they order it to be removed as soon as the skin is reddened. It is quite unnecessary to allow the blister to *rise*, as it is popularly termed. If any of the blistering plaster remains on the skin it should be always washed off with tepid water. I cannot agree with a recent writer on diseases of children, who advises the reddened and tender part to be covered with new flannel, to prevent the child taking cold. The irritation which would be produced by such a plan would be intolerable; and I cannot but express my surprise at such a recommendation. Some writers advise that a piece of fine muslin should be placed under the blister to prevent the absorption of the flies, and the strangury or pain in evacuating the urine which follows it. Others order powdered camphor to be sprinkled on the surface of the blister for the same purpose. Whenever a blister is applied to children, some mucilage of acacia or gum arabic—for example a quarter of a pint—ought to be mixed with the drink. I have repeatedly seen mortification, sloughing, and ulceration caused by blisters on different parts on children, when left applied for twenty-four hours, which is, unfortunately, the usual period.

Blisters have long appeared to me to be too slow in their action; and that inflammation in the head, chest or abdomen, might prove fatal, before they produced the desired effect. The object of a blister is to cause local or counter-irritation; and this can be done in a minute or two by rubbing the skin with warm oil of turpentine. When the skin is reddened by this remedy, it should be discontinued, as it would produce intense pain, but this can always be very speedily abated or removed by the constant application of cold water for a few minutes. The superior advantage of this remedy is, that its effect is sudden, and it does not induce strangury or painful micturition. In my own practice I have for six years ceased to order blisters, for the reasons I have assigned. My learned and experienced friend Dr. Copland, was the first to advise the application of turpentine, as a substitute for blistering, in the former series of the London Medical and Surgical Journal, the London Medical Repository, of which he was the editor. There is also a valuable paper in the Dublin Journal of Medical and Chemical Science, for March 1834, by Dr. Little, of Belfast, on the value of the application of warm turpentine in diseases of the lungs, hooping-cough, asthma, bronchitis, pulmonary consumption, &c., and in croup.

Mustard Poultices and Fomentations.—These are often applied to the feet and legs in cases of inflammation of the brain, lungs, or abdominal viscera, and should always be removed so soon as they excite pain. I have known a mustard fomentation excite pain in a child of two years of age in less than a minute, and if continued might induce convulsions, or be followed by its usual consequences when applied too long, inflammation, ulceration, or gangrene. I have known several cases of adults, in which mustard poultices were applied for twenty-four hours, when the patients were supposed to be dying, convalescence occurred, and also most painful ulceration of both legs as high as the calves.

I witnessed a case of typhus, in which mustard poultices were left on for thirty hours as the man's life was despaired of. He, however, convalesced; both legs mortified, and it was necessary to amputate both below the knees. Another case was that of a gentleman, who was attacked with erysipelatous inflammation of the scalp and delirium tremens. It was supposed by three physicians, who were also practical surgeons, that effusion into the brain had taken place, and under this impression, mustard poultices were applied to his feet and legs. He was declared to be moribund; when I exhibited his habitual stimulous, he convalesced and recovered. There are two similar cases of erysipelatous inflammation of the scalp, related by Sir Astley Cooper in his lectures on surgery, which were considered mortal, and which were cured by gin after the usual remedies failed. The mustard applications did not redden the skin. In six weeks after his convalescence, both his legs ulcerated, and he was confined to

his sofa for three months before the ulcers had healed. There is also caution required in using hartshorn and oil, and other stimulating liniments.

The antimonial, or tartar emetic ointment, is sometimes employed in diseases of children, but great caution is necessary as to its use. It causes an eruption of pustules, like smallpox, which are very painful. This remedy should never be applied over an ulcerated or blistered surface, as it excites a degree of pain which few can bear. This ointment should rarely be applied to children.

The medicines I have named are sufficient for the infantile medicine, with the addition of hartshorn or sal volatile, and olive oil. Anything else required may be had from the druggist.

Blood-letting—Leeches—Cupping—Dry-cupping.—The best rule that can be laid down on the abstraction of blood by bleeding from the arm, or opening the temporal artery or jugular vein, is to be guided by the effect produced, and not by the quantity of blood which is taken. It is an axiom that we should make a free orifice, which allows the blood to flow rapidly, gives the system a sudden shock, causes fainting or an approach to that condition which is desirable whenever venesection is necessary, and does all the good that can be expected, at the least loss of the vital fluid. It is known to most practitioners that the removal of six or eight ounces of blood from a large orifice will cause fainting, while the abstraction of ten times the quantity, from a small orifice, will not produce the same effect. It appears to me that the safest and best precept with regard to blood-letting is, to make a large orifice, and allow the blood to flow until the countenance changes, giddiness, or loss of vision is complained of, and then cease. As constitutions differ there can be no fixed rule, I imagine, as to the quantity of blood to be taken. The directions now given by the most scientific and experienced practitioners are, bleed from a free orifice to the approach of fainting. There are some of the old school, who order twenty or thirty ounces of blood to be drawn; a vein is freely opened, eight or ten ounces are abstracted, the patient faints, and the operator binds up his arm. I am disposed to think that most of you have repeatedly acted in this manner.

Venesection cannot be easily practised on young infants, on account of the smallness of their veins, but its necessity is efficiently obviated by leeches. New-born infants, when properly fed and preserved from the influence of cold, very seldom require leeches, unless when attacked with purulent ophthalmia. A leech to each eyelid will be sometimes required in this desperate disease, though a single leech applied to the chest in cases of catarrh or bronchitis, will afford the most decided relief. It is to be recollected that the skin is extremely vascular and irritable, and that the loss of blood from one leech-bite has frequently destroyed life. When the bleeding is excessive, the countenance becomes pale, the eye glassy, the forehead and extremities cold, the respiration difficult, and should fainting occur, it will be almost impossible to rouse animation or to preserve life. The usual means of arresting the bleeding are, the application of cold water, vinegar and water, agaric, compression, cauterization with caustic or a wire heated to redness. Leeches should be applied over a bony surface, so that efficient pressure may be made to stop the bleeding if necessary. It is wrong to leave any discretionary power to nurses, the practitioner should not leave until he has arrested the bleeding, as infants and children have frequently sunk from exhaustion; and there is at all times the greatest difficulty in restoring them. It is now generally agreed that leeches cause a determination of blood to the part on which they are applied, and also that in congestion of the brain they should be placed behind the ears, along the jugular veins, or to the neck near the roots of the hair, and not on the forehead, temples, or crown of the head, as is usually done.

Cupping.—This operation is rarely performed on children, on account of the vascularity and sensibility of the skin, though it has lately (1834) been very strongly recommended by Dr. Burne, at the Medical Society of London. He stated that he had repeatedly ordered it for children of all ages with the best success. It appeared to me to be pregnant with danger in cases of very young infants, and extremely likely to induce convulsions, or congestion of the brain or lungs, by the violent screaming which I should think it would excite. I have not tried

it, and therefore cannot speak from experience ; but very extensive observation enables me to state, that dry-cupping has superseded the necessity of general and local bleeding in my practice in most of the diseases of children ; and it is a remedy, even in cases of adults, which will generally supersede local bleeding in a great number of instances. It possesses this great advantage, that it requires no scarification, no loss of blood, and that we may apply as many glasses as the extent of surface over the affected part will admit. In cases of infantile diseases it is invaluable.

Dr. Blundell has arranged a table of the quantity of blood that may be taken at the following ages ; but I cannot help thinking, that any fixed quantities are as objectionable as attempting to determine the exact doses of medicines. If constitutions were alike, and children of the same age equally vigorous and well developed, then we might go by fixed rules ; but until then I should be guided by the effect produced, and not by the quantity abstracted. You will of course adopt whichever plan you think most reasonable and best.

During the first month an ounce may be taken ; from the second to the fourth month, two ounces ; from the fourth to the eighth month, from two to three ounces ; from the eighth to the twelfth month, from three to four ounces ; from the twelfth to the eighteenth month, from four to five ounces ; from the second to the third year, from eight to ten ounces ; and from the sixth year to the eighth, from eight to twelve ounces. These were the quantities as set forth in Dr. Blundell's Lectures in the Lancet for 1826 ; but it appears by Dr. Castle's edition of the Principles and Practice of Obstetricy, &c., by Dr. Blundell, just published, p. 832, " what quantity may be safely drawn at once must be determined by circumstances ; but the following tabular statement of quantities of blood, which I have taken away myself at different ages, may perhaps be of some service as a guide :—

	oz.	aver.
From a child of 2 months old, from 1 to 1½		
4 months old	1½	to 2
8 months old	2	to 3
12 months old	3	to 4
18 months old	4	to 5
3 years old	8	to 10
6 years old	10	to 12

The quantities in this table are the same as in the former account, unless that in the latter there is no mention made of the quantity for an infant one month old.

Notwithstanding the authority of the justly celebrated obstetrician just quoted, for whom, in common with the cultivators of medical science in this and all countries, I entertain the highest respect, I feel bound to inform you that I act on the precept already mentioned—bleed from a free orifice, and be guided by the effect produced and not by the quantity taken.

When it is necessary to open a vein in children, a ligature is applied round the wrist or instep, the limb immersed in a basin of warm water for the purpose of congesting the part and rendering the veins more apparent. In all cases of children I would advise you to watch the countenance, and if you see it becoming pale or collapsed, as already described, stop the flow of blood, whether from a vein, by leeching, or cupping, should you employ this last operation.

FATAL EFFUSION OF BLOOD INTO THE PERICARDIUM.

By Dr. Carson, of Liverpool.

The following very interesting case we copy from the first number of the Liverpool Medical Journal—a new contemporary, which augurs well, if we may judge by the first specimen :—

“ Mr. W., a gentleman about fifty-two years of age, of a tall and robust form, clear complexion, subject occasionally to dyspeptic affections, though of very regular and temperate habits ; of an active disposition, though his occupation was sedentary and confining, had been for twelve months affected with considerable anxiety of mind, in consequence of the doubtful issue of

some building speculations. Towards the end of Lent, which he had rigidly observed according to the injunctions of the Catholic Church, on the 11th of March, a day exempted from the prohibitions respecting diet, he had eaten freely of beef-steaks with onion sauce. He was at that meal sparing as usual in the use of wine. On the evening of the following day, he was engaged in a fatiguing and rather anxious way, with the business of a club, of which he was treasurer. On his return from the club, about eleven o'clock at night, in company with two of his friends, when he had nearly reached his own house, he was seized with faintness and debility to such a degree, that without the assistance of the friends who accompanied him he would not have been able to have kept his feet. Soon after his arrival at his house, he was visited by Mr. Bromilow, his medical attendant. He described himself as faint and exhausted; complained of an obtuse heavy pain at the precordia, and was affected with flatulent eructations. His respiration was free, his pulse 70, and regular, though weak. He had no affection of the head, nor pain anywhere, except as described in the chest. His bowels had been opened that day. Mr. Bromilow ordered an antispasmodic draught; and left him with directions to take something warm, and go to bed. He took the draught, and a weak glass of brandy and water. At three o'clock he sent for Mr. B. again, and, as the pain in the chest was not abated, he expressed a wish to be bled, which Mr. B. agreed to, more with the hope of satisfying his mind than from any great necessity for that measure being indicated by the symptoms. He lost a pint of blood. An opiate was then administered. At this visit, Mr. B. examined the chest more minutely. He applied his ear to the different regions of the naked chest, but preceiving no unusual sound, or vibrations, concluded that the heart, lungs, and large vessels were in a sound state. After five o'clock, A. M. I visited him. He felt cold, perspired gently, and chiefly complained of a pain in the chest, which he described as wearisome and oppressive. It was not increased by taking a full inspiration. He had vomited a little in the course of the night, and had discharged some of the onion sauce he had taken the day preceding the attack. He was much troubled with flatulency, and belched frequently, but was not relieved by it so far as regarded the pain in the chest. His pulse was regular; the heat of the body natural; and respiration good. He had had no sleep.

From the information given by Mr. Bromilow, connected with my own observation, I considered that nothing could be indicated by the symptoms beyond an affection of the stomach, which is known to exhibit itself in such anomalous forms. He took four grains of calomel, and two of opium. We visited him again at half after eleven o'clock. He had had little sleep. The symptoms remained the same. He was ordered an aperient mixture, and we proposed to visit him again at seven o'clock. At this visit, I replied to the anxious inquiries of the family—that we did not see any cause for alarm; that the complaint seemed to arise from indigestion; and that I had no doubt he would recover. At three o'clock in the afternoon he sent for Mr. Bromilow, as the pain still continued unabated, and wished to know if he might have any thing to rub the part with. The bowels had not been opened, and he had had little or no sleep. A short time before seven o'clock, the hour at which we had proposed to visit him, and at which I was prevented from attendance by an urgent call to a distant part of the country, Mr. W. was seized with what the family conceived to be a fit; and a short time after the arrival of Mr. Bromilow, expired. In consequence of my unavoidable absence, other physicians were called in, and two arrived, but not until after the death of the patient. I applied for permission to open the body, which was granted. The body was examined twenty-four hours after death, by Mr. Bromilow in my presence, and in that of my son, Dr. Carson, jun. The following were the appearances on dissection:—Upon opening the chest, the lungs on both sides were perfectly sound and collapsed. But, notwithstanding the collapse, the chest was filled more than it usually is when the lungs are sound. This indicated the existence of some foreign substance or morbid enlargement of some of the organs. The pericardium was found accordingly to be immensely distended by some fluid, which, when this bag was opened, was found to be blood, partly liquid and partly coagulated: the quantity was not less than three pints. It was purely blood, without the admixture of any fluid indicating inflammatory action.

The external surface of the heart, and internal surface of the pericardium, were examined carefully, but no ruptured vessels, from which the blood might have flowed, were discoverable on either of these surfaces. The heart itself was perfectly sound, the valves were in good condition, and no disease existed in any of the large vessels. The lungs were free from adhesions, and were everywhere sound. The other viscera were in a sound state. A great deal of care and time was expended in trying to discover the source from which the blood had flowed into the pericardium, but in vain: a slight ecchymosis was observed about the root of the pulmonary artery. Dr. Baillie, in his *Morbid Anatomy*, says, "Cases have occurred, though very rarely, in which a large quantity of blood has been accumulated in the cavity of the pericardium, but where no rupture could be discovered after the most diligent search, either in the heart itself, or in any of its vessels. This appears very wonderful, and not at all what any person would expect *a priori*. Two conjectures have occurred to me, to explain this phenomenon: 1st, that the blood vessels on the surface of the heart have lost their compactness of tissue, so that the blood may have escaped by transudation. The other is, that the blood may have been poured out by the extremities of the small vessels, opening on the surface of that part chiefly of the pericardium forming the immediate cover of the heart, from their orifices having been to a very uncommon degree relaxed."

There is a case related by Dr. Alston, in the 6th volume of the *Edinburgh Medical Essays*, in which the disease of the chest was of long standing. Three pints of blood, which was partly coagulated and partly mixed with lymph, were found in the pericardium. No ruptured vessel was discovered either on the outer surface of the heart, or the inner surface of the pericardium. Upon pressing the heart, a bloody serum oozed out of a great many orifices on its surface, and principally near its base. No disease was discovered in the interior of the heart or large vessels. Dr. Baillie refers to two cases of extravasation of blood into the cavity of the pericardium, in which the source of the hemorrhage could not, after the most careful examination be discovered. In both these, functional disease of the heart had been observed for some time previous to the death of the patient.—*Vide Medical Observer*, vol. 10, p. 330.—*Memoirs of Medical Society*, vol. 1, p. 238.

Various opinions have been advanced respecting the sources from which, in the above cases, the blood was derived. One of the suppositions made by Dr. Baillie appears to me to approach the nearest to the truth, which is that the blood had oozed out of the small vessels on the internal surface of the pericardium immediately covering the heart. It is probable, I think, that the oozing, particularly in the case now narrated, arose from the condition of the blood, and the relaxed state of the fibres. It would appear that the disease was general, and that the shivering, faintness, and depression of spirits were not the effects of the flow of blood into the pericardium, but that this last was, like the affections stated, the effect or symptom of the general disease—that in fact there existed a morbid state of the whole system, similar to that which takes place in purpura, in some kinds of epistaxis, hematemesis, and in bleeding from the bowels in typhus fever. The pain in the chest was in the first place occasioned by the admission of blood into a cavity not accustomed to the stimulus of that fluid. There is no reason to suppose that the action of the heart would be mechanically affected until the quantity of the blood was pretty considerable; for the blood would readily follow the dilatation of the pericardium, occasioned by the elasticity of the lungs, when the chambers of the heart had finished their contractions. No sound was perceived, on carefully examining the chest. Indeed no sound could be excited, as no fluid was poured from one vessel into another. For as the auricles expand as the ventricles contract, the change of place in the constituents of the fluid in the pericardium would be inconsiderable, and made with quietness.

There does not appear to be any symptom in this case that would have warranted the medical attendants in giving an unfavorable prognosis. As a matter of prudence, a less favorable one might have been made, but the same prudence would not permit the expression of a favorable prognosis in any case whatever."

CONCISE ACCOUNT OF THE COMPOSITION OF THE PONTINE MARSHES.

By Dr. Weatherhead.

"The volume of water which escapes from under the lime-stone mountains of the Apennines, is truly astonishing. The principal drains run on each side of the road, and more resemble wide canals than drains in the ordinary acceptation of the word. They are so well leveled that the stream of water cannot stagnate, but runs freely away. With the object of ascertaining the nature of the soil of these celebrated marshes, I made excursions to the right and left of the road, where the water allowed me; and the result of my observations surprised me a good deal. The soil in most places is exceedingly superficial, often not deeper than two or three inches; and below this there is a foundation of solid stone. This last is a calcareous deposition from the waters flowing from under the mountains, and is precisely similar to the travertine found and formed in the neighborhood of Tivoli. This sediment encases, and in time petrifies the reeds and other tubular vegetables that grow in the soil, thus forming congeries of interrupted conduits for the lodgment of water. It is to this peculiarity of formation that the miasmata of the Pontine Marshes, in great part, owe their origin; but while there is no denying its pernicious influence to a certain extent, the degree of alarm this excites appears to me one of those common errors perpetuated by idle repetition, unconfirmed by personal investigation, and unreasonably exaggerated by the fears of the pusillanimous. In my way I passed above forty laborers at work, widening one of the drains; and, as far as I could judge by appearances, they all seemed robust and healthy, working with vigor under a scorching sun, and half up to their knees in water. Habit, it is true, is nature's lieutenant, and we see elsewhere indigenæ thrive in a climate which is almost certainly fatal to a stranger not inured to it. Late in the evening I arrived at Terracina, where a comfortable bed and supper wore off the fatigue of the preceding day's march."

To Dr. Weatherhead's account of the composition of the Pontine Fens we do not demur; but we cannot say that the aspect of the inhabitants made the same impression on us that it did on our pedestrian traveler. The workmen in these morasses are mostly convicts, and those which our author saw may have been a fresh batch from the papal prisons or the mountains. But we venture to say, that no people would long retain the semblance of health in such localities.

The following is the doctor's explanation of the cause of the malaria which affect the Eternal City :—

"Walking on the Monte Pincio one day, I perceived thin and variously composed strata of volcanic dust, developed by the partial cutting away of the hill for the path which ranges on its height; and on examining it in different places, I found it to be entirely formed of a mound of the same volcanic material. It is of a blueish color, speckled with white spots, perfectly calcined, and possesses a strong attraction for humidity. Some that I got several months ago is even now more damp than when taken from the hill, though repeatedly dried by the sun as carried about in my knapsack. This property of the soil of Rome is, in my opinion, the chief source of the malaria, so fatal in its effects here at certain seasons of the year. Its line of distribution marks the limit of its operation, and this circumstance will explain how one side of a street should be notoriously unhealthy, and the other free of any noxious influence. The most heedless observer must frequently have witnessed how speedily the roads in the neighborhood of Rome, dry after even great torrents of rain. He mistakes much if he thinks this proceeds from evaporation: for the heat of the sun, even in the hottest summer months, could dissipate but little in so short a space of time: it is absorbed by the thirsty nature of the soil; and he may convince himself of the fact, by remarking how permanently moist this is all the year round a few inches under the surface. Heat and moisture, we all know, vivify and disengage the fomites of disease. no wonder, then, that these, acting on the debris of animal and vegetable matter in a state of decomposition, buried for ages and daily gaining fresh accumulations, should generate pestilential effluvia, and by contaminating the atmosphere of Rome during summer, produce fevers of so fatal a type.

This pernicious condition of the soil is not confined to Rome (six out of seven of the hills on which it stands I ascertained to be volcanic), but extends as far as the deliquescent earth (its peculiar matrix) itself does : and hence the unhealthiness of the whole of the Campagna. Circumstances certainly modify its degree of intensity ; but I think facts will bear me out in circumscribing the sphere of the operation of malaria to the demarcation made by the line of its extent. The Pontine Marshes, again, owe any peculiar unhealthiness they possess to another kind of formation, of which I shall speak hereafter."

Dr. Weatherhead's theory does not account for the varying position of the malarious portions of Rome. It is well known that the unhealthy topography changes, and that malaria has, for many years past, been progressing from the eastward to the westward. It cannot be supposed that the soil itself has changed—and we must therefore come to the conclusion that some subterranean agent is at work which causes emanation of mephitic miasmata from the surface of the earth, while the primary cause is far from our ken.

We cordially agree with Dr. W. however, in the following sentiments :—

"The air of Rome is heavy and unwholesome, especially for invalids requiring a strict regimen and great care ; and perhaps it would be advisable, on more accounts than one, to have regard to the ordonnances which the stranger will read in the church of Minerva.

With regard to the fitness of the climate as a residence for the pulmonary invalid, I cannot agree in those unqualified commendations which some have bestowed upon it. The air, as I have said, is heavy and moist, and certainly there are some whose lungs such a temperament of atmosphere may suit ; but this I think is certain, that if it prove not beneficial, the trial cannot be made with impunity ; and no physician, if honest in his opinion, can say, *a priori*, whether it will prove so or not. In spring, again, and even in summer, a cold wind blows at times from the Apennines, which suddenly chills the air. This is an observation of Pliny's. My conviction is, that many a consumptive patient, who might have leisurely walked to the grave elsewhere, gallops to his goal at Rome : his languor increases under the depressing influence of so moist and relaxing an atmosphere ; his nocturnal perspirations become more profuse and colliquative ; his expectoration more exhaustingly copious ; a quickened circulation fans the inflammatory combustion, and a keener hectic feeds on the vital principle until it is consumed, when death, closing the scene, bears away the last sigh, fraught with regret for having ever left home."

On the appearance of Dr. Turnbull's work on *The Medicinal Effects resulting from the External Application of Veratria*, we confess that the wonderful, we would almost say miraculous, cures which were recorded by the author, induced us to view the work with suspicion. We therefore put it aside, with a determination not to notice it until we could either, from our own observation, or from the observation of others, ascertain what confidence was to be placed in the employment of the *veratria*, as a remedial agent. Dr. Johnston having, in the July number of his Journal, furnished us with the results of his experience of the use of the remedy in some cases of *neuralgia*, and these being strongly confirmatory of the statements of Dr. Turnbull, we take the earliest opportunity of bringing the subject under the attention of the profession ; and we conceive we cannot better do so, than by the publication of the small work of Dr. Turnbull's, which costs \$1 50, but which we are enabled to furnish to our subscribers for a mere trifle—the result of the editor's experience contained in the July number of the same Journal, which we publish below.

When we doubted the correctness of Dr. Turnbull's statements, we consider it due to him and to ourselves, to state that we had no suspicion that he was willfully disposed to make misstatements. We considered him only as being too enthusiastic ; and, from this cause, disposed to attribute the cures to *veratria* when it was due to other remedies. We still think that experience will not confirm all he teaches as to the remedial operation of this new medicine, but the results of Dr. Johnston's practice in cases of *neuralgia* should, we conceive, lead

physicians to give the veratria a fair trial in all the cases for the cure of which it has been recommended by Dr. Turnbull.—ED.

DR. TURNBULL AND VERATRIA.

In our last number, we expressed a hope that the experience of others might confirm that of the author, promising at the same time that we should communicate the results of our own trials. It is unnecessary to assure our readers that on this, as on every other subject of professional inquiry, our minds have not been biassed either by prejudice or partiality. Truth and justice are ever the only guides of our conduct.

In two cases of facial neuralgia affecting the infra-orbital nerves, and which had continued, with varying severity, for three and seven years respectively, the use of the strong veratria ointment has been followed with speedy and decided relief; the paroxysms being rendered not only of much shorter duration, but also less agonizing and of less frequent recurrence. One of the patients, a carpenter, about sixty years of age, had been for nearly two years so afflicted, that he was quite incapable of following his work during almost the whole of that time; every alteration in the state of the weather, however trifling, inducing a fit of pain. After a week's employment of the ointment his condition was greatly improved, and along with the comparative ease which he enjoyed during the day, he began to sleep quietly at night; a comfort of which he had been nearly quite deprived.

The second case, occurring in a countryman, of between sixty and seventy years of age, was as satisfactory as the preceding. Both patients are indeed still subject to returns of the enemy's attack; but so confident are they of having him under their power (by rubbing the affected parts with the ointment until its full effects are produced) that they always carry a box of it in their pockets wherever they go.

We have seen a third case of painful affection of some of the twigs of the infra-orbital nerve, in a middle-aged lady. It had resisted a great variety of treatment, but has now yielded almost entirely to the use of the veratria. From the circumstance however of this patient being of an extremely nervous and delicate constitution, as well as from the other features of the case, we were inclined to regard the facial pain, rather as one symptom of hysterical disease, than as a specimen of genuine or idiopathic neuralgia. Nevertheless we must confess that it had tortured her for a length of time, and that the relief which she now enjoys is truly great.

The fourth case was one of rheumatic neuralgia, affecting the lower extremities. The disease had originated about twenty years ago, from exposure to cold and damp; and the patient, a clergyman, had tried a host of remedies, prescribed by many of the most eminent medical men of this metropolis, with very little advantage. The nerves chiefly involved, appear to be the superficial branches of the anterior crural and fibular trunks. The results of his experience of the veratria ointment are, that whenever he is able to induce its peculiar effect upon the parts, the pain begins to abate, and then gradually subsides. He is also of opinion, that the recurrence of the paroxysms has not been so frequent.

The fifth case was in some respects similar to the preceding one, but much more severe. The trunk of the sciatic and the branches of the gluteal are chiefly affected.

Frictions with strong veratria ointment (℞ij. to the ℥j.) were repeatedly tried, but without any avail; the sense of burning or tingling could not be induced. Under these circumstances Dr. T. says, that we have no reason to expect any benefit. Whoever therefore gives a trial to his remedy ought carefully to attend to the test which he has pointed out as indicative of the operation of the drug. Three cases of heart affection, in which Dr. Turnbull thinks the veratria has been of decided advantage, have been submitted to our inspection; but the data which have hitherto been furnished, are as yet quite insufficient to warrant us in affixing the stamp of our testimony to the correctness of his opinion. The patients indeed confessed that the cardiac distress was always relieved whenever the effects of the veratria were induced. We willingly give credit to this; because we are satisfied that the medicine exerts a very peculiar effect as

a counter-irritant; and it seems to differ from almost all others in this respect, that its operation is confined solely to the nerves of the part, the blood-vessels being scarcely affected.

It is therefore our decided opinion that veratria is a useful and very potent medicine in certain nervous affections, and that it deserves to be, and no doubt will become an established member of the *Materia Medica*. Few, perhaps, can hope to obtain such wonder-working results as Dr. T. has had the good luck to achieve. Parents are naturally over-fond of their offspring!

As sincere friends of the profession, we deprecate alike the extremes of indiscriminate applause and of incredulous condemnation.

In addition to the evidence furnished by the above extract, in favor of the veratria, Dr. Dickson, Physician to the Plymouth hospital, in a letter, states that he has lately been making trial of the veratria, and observes, *in some cases it seems to have great power, in others none.*

Dr. Lane read lately, in the Liverpool Medical Society, a paper on "Hypertrophy of the Mamma," and related a case which he had successfully treated by iodine, ergot of rye, and mercury. In the case alluded to, there was total suppression of the menses: the patient had her mouth made sore by mercury; the iodine was given till her throat became affected; the ergot of rye given in \mathfrak{D} ss. doses, thrice daily for thirteen days, when there was a slight discharge, lasting for a few hours. The ergot continued three weeks, with the result of another discharge, of nearly a day's continuance, after which, up to this date, the patient had a periodical recurrence of the catamenial issue. Her breasts, too, now were reduced more than one half their original size.

23d Dec. Dr. Lane in the chair. In the same society, Mr. Neill read a paper in which he related several cases of disease of the retina, with double vision; and in which *strychnine*, both externally and internally, had produced beneficial effects. One case was remarkable for having the double image presented to the diseased eye, even when the healthy eye was closed: this case was accompanied with a rushing sound in the ears, relieved by strychnine, of which four grains were taken in eight days. The diplopia was likewise benefited by the treatment. The accidental death of the patient (from a weight falling upon his head) prevented the final result being ascertained. Mr. N. laid it down as an invariable rule that the strychnine would do no good unless the IRIS retained *some* degree of mobility.

The following very remarkable case of a foreign body found in the heart of a boy, by T. Davis, Esq. of Upton-upon-Severn, is published in the 2d vol. of the Trans. of the Provincial Med. and Surg. Association:—

We do not know that we can usefully abridge the following particulars:

"On Saturday evening, January the 19th, 1833, I was summoned to attend Wm. Mills, aged ten, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself with a gun made out of the handle of a telescope toasting-fork. To form the breach of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle. The consequence was, that when the gunpowder exploded it forced the artificial breach, or piece of stick, from the barrel part of the gun with such violence, that it entered the thorax of the boy on the right side between the third and fourth ribs, and disappeared. Immediately after the accident, the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint; when I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of reaction took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once during that time walked into his garden and back, a distance of about eighty yards; and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather too bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough, nor spitting of blood. The secretions were healthy. He had no pain throughout his illness."

He died on the 25th of February, five weeks and two days after the occurrence of the accident.

Dissection.—On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

The lungs appeared healthy, with the exception of a small tubercle at the right, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding in size with the cicatrix on the parietes of the chest.

Half an ounce of serum was contained in the pericardium.

"When an incision was made into the heart, so as to expose the right auricle and ventricle, we were astonished to find, lodged in that ventricle, the stick which the boy had used as the breach of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carneæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum, as large as a walnut.

We searched in vain for any wound, either in the heart itself or in the pericardium, by which the stick could have found its way into the ventricle."

Mr. Davis seemed puzzled to imagine how the stick got into the ventricle. He supposes that it entered the vena cava, and was carried with the blood into the right side of the heart. The stick would appear to have been about two inches and three quarters in length. There are, therefore, obvious physical difficulties in the way of its getting from the vena cava to the auricle. We know of no better mode of accounting for the fact; and we leave the explanation to such of our readers as can find one.

We agree with the editor of the *Medico-Chir. Review*, "that a better mode of accounting for the fact cannot be furnished." Were the case not derived from so respectable a source, we should consider it incredible.

VACCINATION IN ITALY.

Dr. Festler has published in the January number of the *Annali Universali*, an instructive report on the variolous epidemic which prevailed last year in the district of Albignasego, of which he was medical superintendant. It is most gratifying to observe, that the physicians of all the countries which have hitherto adopted vaccination, are unanimous in the judgment which they have formed of the striking advantages of this great boon: admitting, indeed, that it is not invariably a secure defence against the inroads of small-pox, they are forced by the love of truth to proclaim, that few, very few of those who have been properly vaccinated, are susceptible of the infection of the variolous poison; and that moreover (a most important fact) in such as have caught the disease after vaccination, it is almost always mild and easily tractable.

The testimony of Dr. Festler cannot possibly be gainsayed; not one of his vaccinated patients died, and with the exception of a single case, the symptoms were those rather of a varicellous or of varioloid affection, than of genuine small-pox. Not a few who caught the disease in the natural way fell victims to it. It is a circumstance worthy of mention, that the first case of all, at least as far as Dr. F. could ascertain, occurred in a female who had been vaccinated when young: in her it was varioloid, but as several living in the same house had

never been subjected to the cow-pox, they were seized with the actual variola, and as we have said, many died. It appears unnecessary to trace the details of individual cases; the general results only it is of consequence to make known; and first with regard to the different forms which the disease put on, when it attacked those who had been previously vaccinated. They may be reduced to three; viz. varicella, varioloid, and lastly the genuine variola. We shall say a few words on each.

1. *Varicella*.—The smallest number of cases, and these too were of the mildest form, occurred in the youngest patients, or in those who most recently had been vaccinated. After a slight pyrexia of one, two, or three days' standing, a few red spots, interspersed with small tubercles of the natural color of the skin, made their appearance on different parts of the body; the feverish symptoms thereon ceased; the spots became vesicles or pustules, and these dried away almost as soon as formed; the tubercles on the other hand seemed like abortive variolous papulæ, and continued for a few days longer, and then gradually scaled off; the exfoliation affecting only the cuticle. In eight, or ten days at most, from the invasion of the disease, the patients were quite well.

2. *The Varioloid*—affected chiefly those above fifteen years of age or thereabouts; not but that many at and above this period of life exhibited nothing but the mild varicella; all that we intend to say, is, that very few cases of varioloid occurred in those who were younger. As we have already stated, the younger the patients the less susceptible were they of the infection, and the milder generally was the disease. The greater number therefore of the cases were of the varioloid type. The eruptive fever was more severe, and was frequently accompanied with some irritation in the throat and trachea, as in coryza and slight bronchitis. On the third, fourth, or fifth day, a rash, like that of measles or of scarlatina, appeared; this was soon succeeded by distinct papulæ, or tubercles, which in a day or two became vesicular; the lymph of these vesicles, at first clear and like water, gradually thickened and assumed a yellowish color; some of them remained pointed, others became flat, or depressed in the centre; the former contained least lymph, and, upon drying, they left behind the colorless tubercles, which we alluded to when speaking of varicella.

The usual period of the desiccation of the pustules was from the eleventh to the fourteenth day, counting from the commencement of the disease. Sometimes, although rarely, a few pustules on the face or chest remained longer, suppurating slowly, but not attended with any febrile re-action. On the eighteenth day, almost all the patients had quite recovered; no pits were left behind, only some faintly-red spots or blotches. The eruption of the varioloid was never distinctly or generally confluent—the color of the crusts or scabs was an ashen or dirty-yellow color; when once thrown off, they were never renewed.

3. *Variola*.—Only one case of genuine small-pox, after vaccination, occurred; and, although, severe, the patient ultimately did well. In it the third stage, or that of the maturation of the pustules, was well marked; the pyrexia never ceased entirely, and was followed by a regular secondary fever, which continued until the end of the third week.

These three forms of eruptive disease we consider to be produced by the same poison, acting on differently disposed constitutions; each is capable of propagating either of the three forms, so that from a mild varicella, a person may be infected with a severe variola, and, on the other hand, the worst form of small-pox may communicate only a slight cow-pox; all depends on the susceptibility of the individual exposed, and the susceptibility appears to be proportionate to the interval between the vaccination and the exposure to the infection.

Is not, therefore, the line of conduct which ought to be pursued obvious to all? Whenever a case, whether of varicella, varioloid, or variola occurs, the patient, and every inmate of the same dwelling, should be confined to their house, and prevented, under a severe penalty, from associating with others. It is only by such a rigorous and wholesome enactment that we can hope to crush this many-headed monster. At the same time, vaccination ought to be authoritatively, unconditionally, and exclusively promoted by all governments.

On the subject of *re-vaccination*, Dr. Festler states that he has himself re-vaccinated upwards

of fifty persons, of different ages, from two to thirty-two years. Of these, not above twenty were affected specifically with the virus. Indeed, the phenomena varied so considerably in different individuals, that we may conveniently arrange them in three classes, corresponding somewhat with the threefold division of varicella, varioloid, and variola.—1, Some resisted the operation of the poison altogether, and the punctures on the arm were not more inflamed than if they had been made with a clean lancet; two-thirds of the whole number, as we have just now stated, belonged to this class. 2, In others, the punctures were more inflamed, and on the fourth day or so, a pointed tubercle or small boil appeared on each—the suppuration was quite superficial, and, on the fifth or sixth day, had dried to a rough scab or crust, accompanied with much troublesome itching; in two or three more, the crust fell off without leaving any scar. 3, And, in a third class, the development and progress of the tubercle resembled more nearly but by no means regularly or perfectly, the maturation and decay of the genuine vaccine pustule. The suppuration did not affect the subjacent cellular texture—the red areola was more circumscribed, and of a paler color; the pustule was visibly umbilicated, the crust did not exhibit the concentric striæ and circles, it fell off sooner, and the cicatrix was not dotted as after genuine vaccination, but was rather like to the scar of a slight burn or scald. This form may, therefore, be compared with the eruption of the varioloid; the specific action of the virus does not penetrate deeper than the cuticle, whereas, in the true variolous and vaccine pustules, the subcutaneous and cellular texture are equally involved.

In order to satisfy himself that the matter of the imperfect pustule of a re-vaccinated person has all the specific agency of genuine cow-pox, Dr. Festler inserted some into the arms of infants who had never been vaccinated, and the consequence was, that perfect and complete vaccine pustules were induced; so that it is quite apparent that the modified effects, in the first instance, depended upon the state of the constitution of the individual, and not upon the quality of the virus. Dr. Festler repeated the operation a third time in the case of his own wife, and the pustule which, on the former occasion, belonged to the third division above described, was now more irregular and imperfect, as in the second division. The susceptibility has, therefore, he thinks, become less and less, although it may still exist in a small degree. Neither Madame, nor any other of his re-vaccinated patients, suffered at all from the variolous epidemic, although frequently exposed to its immediate influence.—*Annali Universali*, Jan. 1833.—[Medico Chir. Review.]

CLINICAL RESEARCHES ON THE MEDICINAL EFFECTS OF DIGITALIS.

The reports of medical men on the powers and properties of this potent drug, have been strangely conflicting and inconsistent with each other. Cullen affirmed that the direct physiological operation of foxglove is to weaken and retard the action of the heart and arteries; Dr. Sanders has on the other hand maintained that it first quickens the pulse; and lastly, Orfila and others have not obtained any steady or uniform results, either the one way or the other. Equally discordant have been the statements of different authors respecting the therapeutic effects of digitalis. If we are to believe Drs. Bidault and Currie, it is of great efficacy in all inflammatory diseases;—Clutterbuck considered it as the only specific against fever;—asthma and epilepsy have been said to be under its immediate control; Darwin, Fowler, and Beddoes, would lead us to suppose that it is able to cure hæmoptysis and even phthisis, and Hufeland has pompously eulogized it as the most heroic of all anti-scorfulous remedies!! That it possesses beneficial powers in quickening the action of the absorbents, and in increasing the flow of urine in certain cases of dropsy, will be disputed by few; but that it has cured encysted dropsies of the ovarium must surely be the mere fantasy of a fond admirer.

The following researches were instituted, and very carefully pursued, for the purpose of arriving if possible at some satisfactory conclusions respecting the physiological and therapeutic effects of digitalis. It was exhibited sometimes in the form of powder recently prepared, and possessing all the aromatic qualities of the fresh herb; at other times, of a watery or alcoholic

extract; and lastly of infusion. The extracts were obtained in the following manner, according to the directions of Professor Soubeiran, the director of the central pharmacy of hospitals. The juice of the fresh herb, procured by expression, was gently heated, for the purpose of coagulating the vegetable albumen; it was then filtered, and evaporated in a water bath to a proper consistence. The alcoholic extract was obtained by slowly evaporating a concentrated tincture of the leaves.

It may be mentioned that most of the following cases have been derived from the clinique of Professor Andral; at the Hopital de la Pitie.

EXPERIMENTS WITH THE POWDER.

CASE 1.—Hypertrophy and Dilatation of the Heart—48 grains of *Digitalis* in six days.—March 24th.—A woman, aged sixty, was admitted with the following symptoms:—Impulsions of the heart very strong; upon any effort of the breathing as in coughing, blowing the nose, &c. they become so violent, that they caused her to faint away, and the extremities to become cold and benumbed. The pulse is 68; the number of respirations in the minute only 14. She suffers much from headache, noises in the ears, confusion of sight, with a pricking sensation in the eyes, pain in the region of the kidneys, and general anasarca of the lower limbs. These symptoms are of three months' duration; but it is nearly a twelvemonth since she had an attack of severe dyspnœa, from which period she dates the commencement of her illness. She was ordered four grains of digitalis to be taken in the course of the day.

25th. Pulse 92—Respirations 38—8 grains of digitalis ordered.—This quantity was continued every day until the 30th without any very appreciable results on the circulatory and digestive functions. The medicine was then discontinued, and the patient kept upon a light emollient diet. On the 4th of April she was seized with almost constant fits of fainting, and with distressing anxiety. Pulse 96, and the palpitations stronger than ever. Respirations 36. A more decided antiphlogistic regimen was now adopted, but with little relief to the symptoms.

Remarks.—No very striking effects were produced on any of the functions in this case. The pulsations of the heart were little influenced; the urine was not affected at all.

CASE 2.—Hypertrophy of the Heart—60 grains taken in six days.—A shoemaker, fifty nine years of age, had suffered much from headache, confusion of sight, and buzzing noises in the ears. He has had frequent attacks of violent palpitations of the heart. Pulse 74, resp. 44.

A small bleeding was practised; the blood was not inflamed, but the action of the heart was somewhat reduced, the number of pulsations being then only 64, and of the respirations 22.

He was ordered three grains of the digitalis, and this dose was increased to six, and then to 12 grains, on the two following days; no perceptible effects were produced. Sixteen grains were prescribed; the pulse fell four beats, and the palpitations were less violent. On the following day, a scruple divided into five doses, was taken. The patient vomited his food, and experienced a good deal of nausea; but these symptoms ceased during the evening. Pulse 64. The dose was, however, diminished to 12 grains. During the course of the day, he vomited twice and complained somewhat of vertigo. The pulse was 60, and the number of respirations 28.

Remarks.—This case illustrates the occasional total inefficacy of digitalis in relieving the symptoms of cardiac disease. It was on the fourth day of the treatment that any perceptible change on the circulation was first observed, and then this change was very inconsiderable.

CASE 3.—Asthma—Pulmonary Tubercles—3 drams and 26 grains in twelve days.—A mechanic, aged thirty-three, was admitted into the La Pitie hospital on the 15th March, 1833. He complained of a sharp, teasing pain in the region of the sternum, especially when he coughed, or in any way exerted his lungs. On both sides of the chest behind, a sibilous and sonorous rale could be heard; in front, the respiratory murmur was pure, and percussion elicited a healthy sound. The breathing was sometimes exceedingly distressed, and the expectoration of mucus, tinged with streaks of blood, copious. Pulse 96—respiration 28. This patient had experienced several attacks of hemoptysis, and had for many years been subject to winter

coughs. He was bled, and the pulse fell to 68. One grain of powdered digitalis was ordered, and, on the following day, the dose was increased to four grains; the pulse had fallen to 52, but now was 60. Twelve grains ordered. Pulse 46—breathing more free, and also more pure on auscultation. Sixteen grains ordered; pulse 41—respiration 16. Twenty grains ordered; pulse 40. On the following three days, the dose of the foxglove was reduced to 16 grains.

There had been occasionally vomiting and considerable nausea; but these symptoms were by no means constant. The tongue presented a natural appearance, and the cerebral functions were undisturbed; the pulse remained at about 40. As the symptoms gradually subsided, the dose of the medicine was again raised to a scruple per diem, and, on the following day, to 30 grains; the patient vomited twice in the course of the night—pulse 40, somewhat irregular in its action. Thirty-six grains ordered; nausea during the whole of the day—pulse 37—respiration 13—cough and expectoration much less. Forty-eight grains ordered; vomiting returned—bowels relaxed—pulse 42, irregular as before. The use of the digitalis was now suspended; the nausea, however, and vomitings continued to recur, the pulse remained at 40, and the respiration at 15—tongue natural—cough quite gone, and the patient left the hospital on the 5th of April, much relieved.

Remarks.—It will have been observed that, in this patient, the pulse fell on second day of the treatment, when the dose of the digitalis was only two grains; the bowels were then somewhat relaxed, but this relaxation did not increase with the increase of the dose. The stomach began to be disturbed with nausea and vomitings; the pulse fell below forty, and, at the same time, the cough and expectoration abated. These symptoms continued, with little variation, till the completion of the cure. During the whole period, the condition of the tongue remained unaffected, and there never was any epigastric tenderness. Neither the salivary nor urinary secretions were affected.

CASE 4.—Rheumatism—Hypertrophy of the Heart—37 grains in four days.—The patient, a servant, eighteen years of age, had for five years, during the winter months, been troubled with attacks of general rheumatism, and each attack was usually followed by palpitations of the heart. The breathing was always more or less short and distressed; pulse 120, thready—respirations 32—dyspnœa almost constant—the action of the heart sometimes very violent—the dull sound in the cardiac region more extended than natural, and the impulsions of the heart might be heard over every part of the thorax. An incipient bruit de soufflet perceptible; a subcrepitant rale heard on both sides behind.

The patient was bled, and the blood exhibited a partial buffy crust; symptoms not affected—4 grains of digitalis ordered. Although the dose was raised first to 9 and then to 12 grains, the action of the heart was not at all abated, and the urinary secretion not increased—indeed, during these two days, a dropsical effusion into the cellular membrane had taken place. The patient was, therefore, bled again, and the blood now presented a stronger crust than before; the digitalis was discontinued. On the following day, there were frequent vomitings and almost constant nausea, and the pulse had fallen to 68, and had become irregular—the respirations were 34. By rest and quiet for a few days, this patient was enabled to leave the hospital.

Remarks.—The interesting feature of this case is, that the digitalis seemed to be almost quite inert until the second bleeding, when what are deemed its specific effects were first developed.

Our limits prevent us from detailing the particulars of the other cases in which the powdered digitalis was exhibited; we shall, therefore, merely mention their leading features.

In a man, thirty-eight years of age, who had long labored under pulmonary emphysema, and, at the period of his admission into the hospital was suffering from acute bronchitis, accompanied with some symptoms of an affection of the heart, venesection and active purgation were employed with decided advantage, the pulse having fallen from 96 to 68. Eight grains of the foxglove were now ordered, and this dose raised, on the following days, to 12, 20, and 25 grains, with the effect of lowering the pulse to 56. Half a dram was then prescribed, but, as vomitings and nausea supervened, the dose was reduced to 16 grains. Next day the pulse had

risen to 72; the quantity of urine was not increased, and, as the head was somewhat confused, the use of the drug was discontinued. On the day after, the pulse fell to 52, and the number of respirations from 24 to 16. This state of amendment continued for several days, and, when the patient left the hospital, the pulse was slow, and the palpitations less violent.

In a case of phthisis, in a state of cavernous ulceration, the digitalis was administered in doses of 6, 12, 16, and 20 grains, on the four days preceding the death of the patient; the pulse, which was at first 128, rose each day, till it arrived at 160.

In another case of phthisis, the digitalis, was taken for four days, in doses of 8, 12, and 16 grains, when it produced considerable disturbance of the gastric functions, and the pulse became somewhat slower; but in spite of these occurrences, the medicine was continued in larger doses, and the vomitings and nausea, instead of being thereby aggravated, actually subsided, and the pulse remained unchanged. On the following day, however, the stomach distress returned, and the use of the drug was abandoned. The pulse had become somewhat irregular, but scarcely abated in frequency.

Such are the results of the experiments in which the powder of the herb was employed; we shall now briefly allude to the results of the exhibition of the aqueous extract.

To a man thirty-eight years of age, who had long suffered from dyspnœa, without any concomitant symptoms of diseased heart, and when his pulse was 72 and his respiration 20, 16 grains were given; on the following day the pulse was 68. The dose increased to a scruple; pulse 60. The dose 36 grains; pulse 54. Dose the same; pulse 48. The dose the same; pulse 48. Dose 52 grains; and, on the subsequent day the dose was raised to 72 grains, but the pulse did not fall below 48 beats. Four drams of the extract were taken in all.

In a case of chronic rheumatism, the aqueous extract was exhibited, although no symptoms of thoracic or cephalic disturbance were present. It was given at first in small doses of only 2 grains, the pulse being at the time 56. The dose was gradually increased to 4, 9, 12, 20, 32, 40, and 48 grains; and the pulse, on the corresponding days, was 64, 60, 60, 56, 56, 56, and irregular, 56, 44, and, again, 52. The stomach was not disturbed until the fifth or sixth day of the employment of the medicine.

The third case is one of acute bronchitis, occurring in a man fifty-eight years of age. He was first bled, and then the aqueous extract was exhibited, in doses of 6, 20, and 30 grains; the pulse fell from 64 to 52.

The three preceding examples appear to indicate that the aqueous extract of digitalis exerts a depressing effect on the circulation; but this is by no means constant or uniform, for three other cases are detailed, in which the pulse was either not affected at all, or actually rose in frequency during the administration of the drug. Two of the patients were phthisical—in the first stage of the disease.

The last case recorded is interesting, and we shall, therefore, give it abridged.

A young man, who exhibited most of the characters of pulmonary tubercular disease, was treated with the aqueous extract. M. Andral commenced with doses of one grain and gradually raised the dose to 20, and to 36 grains; the pulse fell from 68 to 52, but the digestive, respiratory, secretory functions were not at all affected. Indeed, the bowels were all the time exceedingly constipated (the effect of digitalis is usually to induce a certain degree of looseness). When the dose was raised to 40 grains, the pulse became irregular, and beat only 48; and it fell four when 50 grains were taken. There was no sickness or vomiting all this time, nor any confusion of head, nor giddiness.

The conclusions to be drawn from the preceding data (the authenticity of which is guaranteed by the name of M. Andral), are very different from what medical men would have anticipated; but we suppose that most of our brethren will agree with us in asserting, that the generally received opinions as to the physiological and therapeutic effects of digitalis, have been derived much more from books than from clinical investigations or experiments.—*Archives Generales*.

INFLUENCE OF GRAVITY AND OF A DEPENDING POSITION ON THE CIRCULATION OF THE BLOOD, IN HEALTH AND IN DISEASE.

To appreciate properly the importance of these influences, it is proper that we attend for a few moments to the condition of the circulation in different parts of the body in its most frequent attitudes and postures; viz. the vertical or upright, and the horizontal. As the former is the most frequently repeated and longest continued, it may therefore be reasonably believed to exert a more influential operation on the current of the blood than the other. Let us consider the effect of the upright position of the body (and this, we need scarcely say, includes the sitting as well as the standing posture), and we shall at once perceive that the arterial circulation in the inferior extremities is thereby facilitated, while the venous circulation is proportionally impeded. It is not therefore surprising that as the body advances in years, the operation of gravity which is acting constantly, except during sleep, against the venous current, should on many occasions induce engorgement of the veins of the leg, giving rise to varices, and to obstinate ulcers. The circumstance of these being almost peculiar to the lower limbs can be explained only on the principle we have stated. The condition of the circulation through the head is the very reverse; the arterial current has to ascend against the gravity of the blood, whereas the venous current downwards is favored by it. Whenever the upright posture is changed for another, say the horizontal, the circulation is very perceptibly affected; the veins of the face and neck become swollen and livid, the carotids and temporal arteries pulsate with greater force, and headache and confusion of thought are often induced. These phenomena are still more rapidly and more strikingly developed if the head is lower than the rest of the body. From this example we perceive that the veins of the head and neck are nearly passive tubes; their contractile power is very small, no doubt from its being seldom called into play; and hence they become easily distended whenever the current of their blood is not favored by gravity. The contractile power of the veins of the upper and lower extremities is much greater; but in the case of the latter it is often much weakened by their almost continued state of distention to which they are exposed.

Now the circulation through the other parts of the body also is affected, and that too very materially, by the influence of the gravity of the blood, but in different degrees according to their situations and positions. As a general truth we may assert, that whenever the venous circulation is favored by the gravity of the blood under ordinary circumstances, *there* will congestions be apt to take place, or to be much increased when they have already taken place, by any change of the accustomed position; and the reason of this is, that such veins have but little contractile power to aid in propelling their contents. To return to the subject of the cephalic circulation, is it not a fact of daily observation, that scarcely any one is able to continue long in a strictly horizontal position? the head must be somewhat raised above the level of the body, else unpleasant feelings come on, which not only prevent sleep but may induce dangerous symptoms. It is not improbable that the less free return of the venous blood from the head when we lie down, may have something to do in the phenomena of sleep. And is it not, in part at least, this cause which keeps up the desire for sleep beyond the requisite period of repose; so that the longer we remain in bed, the longer still we wish to remain? It is not unfrequent to observe in elderly patients who have been, from whatever cause, long confined to bed, a set of nervous and cerebral symptoms supervene, and these may resist every means of relief which may be devised. The perceptive and intellectual faculties become dull and inactive; a state of torpor and apathy, of greater or less degree in different cases, comes on; the patient is unwilling to be troubled with any thing, as the answering of questions, and so forth; and when he does return an answer, perhaps it is confused and rambling. These are alarming symptoms, and if they continue and become aggravated we can have no hope of saving our patient.

On dissection of such cases we usually discover some degree of encephalic congestion, and perhaps a trifling effusion within the ventricles. We deem it not improbable that the true source and origin of most of the mischief are to be sought for in the altered state of the

cephalic circulation in consequence of the more frequent and longer continued decubitus or position in the horizontal attitude. As it is with the head, so it is with other parts of the body, when they are kept for a length of time in a depending posture. In the chest the stasis of the blood is always more considerable in those parts of the respiratory organs which are lowest; and it has often been remarked, that pneumonia, especially when it attacks those who have been long bedridden, very generally affects the base of the lungs. Perhaps some curious and interesting results might be obtained by endeavoring to ascertain the comparative frequency of pneumonia on the left and on the right side, of engorgements of the liver, and of the spleen, in relation to the ordinary position of the patients during their sleep. It is quite possible that the blood may acquire a tendency to accumulation in particular organs on that side which the person usually assumes while asleep.

In our July number of last year there is an interesting memoir of M. Piorry, on what he designated "*pneumonia hypostatica*," or pneumonia arising from a continued state of congestion of certain parts of the lungs, kept up by long confinement in bed. Almost all the cases occurred in old infirm patients admitted into the La Salpetriere, as objects of charity. The mere confinement to bed appeared often to bring on cough and other pectoral symptoms, and these were found to be quite irremediable, if the patients were kept all day in the horizontal position.

Auscultation readily discovered the seat of the pulmonary lesion; the dulness on percussion, and the absence of the respiratory murmur, with the consecutive rales, heard on each side of the spine, showed that it was the posterior part of the lungs which were chiefly affected; and the post-mortem examination confirmed in every case the accuracy of the diagnosis.—[Ed.]

The injurious effects of a depending position are well illustrated in the case of the female mamma, when not properly supported, especially during lactation; the veins become much enlarged and distended, and not unfrequently severe darting pains are felt through the organ, giving rise to apprehensions of the commencement of serious disease. Then, too, the very common malady of hemorrhoids is another striking example of the influence of gravity on the circulation of the blood; and the phenomena of many uterine affections also afford testimony to its operation; thus numerous cases of inflammation of the womb are induced by the patients too soon leaving bed, and getting up; the change from the horizontal to the vertical position favors the more easy flow of blood along the uterine arteries, while it retards the returning current in the veins; hence therefore we may readily explain the occurrence of inflammation or hemorrhage under such circumstances. Every obstetrical physician knows that it is of paramount importance to enjoin a reclining posture in all affections of the female internal organs of generation.

Again; it is the agency of mere gravity which induces a varicose state of the spermatic veins in men, constituting the diseases of varicocele and circocoele, and these diseases are invariably aggravated by all causes which are capable of increasing the force of the gravity of the blood, or of relaxing the coats of the bloodvessels, such as exercise, long standing, heat, &c. The use of a well made and well-applied suspensory affords by far the most effectual relief. But the phenomena which result from the influence of gravity are still more apparent and striking in the extremities of the body. If the hand has been long hanging by the side, especially when it is warm at the same time, the veins become full and distended, every minute ramification can be traced, and the whole volume of the soft parts is greatly increased, so that even a feeling of unpleasant tension may be induced; by merely raising the hand and arm, and keeping it for some time in that position, all these appearances vanish, and the member resumes its wonted condition. This affords one of the best examples of the influence of mere gravity on sanguineous accumulations; and we can readily believe that the upper extremities would very often exhibit the effects of such accumulations, were it not for the free and frequent movements of them in all directions.—In the case of the lower limbs, the movements are much more limited, and their position is almost always unfavorable, except during sleep, to the return of the venous blood; whether we are walking, standing, or sitting, the blood has to rise from the feet upwards

against the force of its gravity. Hence it is, that varicose distentions of the veins of the foot, leg, and thigh are so frequent, and especially whenever there is any superadded cause, which may impede the easy reflux of the circulating fluid—the pressure of the gravid uterus, of an enlarged ovary, &c. is well known to be a common cause of such a malady. When the larger veins of the extremity have been varicose for some time, and especially if the patient neglects the proper means of relief, the capillary veins become gradually distended and engorged—the surrounding cellular substance becomes inflamed, hardened, and ecchymosed, in consequence of blood oozing out occasionally from the over-distended vessels, and being infiltrated into the cellular parenchyma. It is under these circumstances that the skin not unfrequently gives way, and ulcers, most painful and difficult to heal, become formed. Having thus briefly glanced at some of the most illustrative examples of the influence of gravity, as a cause of inconvenience and disease, we shall now direct the attention of our readers, for a few moments, to certain maladies in which the influence of this agent is conspicuously observed.

In severe cephalic neuralgias, the horizontal position is often found to augment the sufferings of the patient; and the only attitude in which he can find any rest is with his head well elevated. We do not mean to imply that these cases are of an inflammatory nature, yet it is very evident that they are much aggravated by any sanguineous congestion in the parts affected. In phrenitis, otitis, erysipelas of the face, the higher the head is kept raised, the more relief the patient experiences; and when any local inflammation, as of one ear, exists, we uniformly observe that the symptoms are mitigated by lying on the opposite side. Ophthalmia has often been translated from one eye to the other, by the person continuing to lie on the sound side when the inflammation was abating in the other, and this alternation of the seat of the disease may be repeated several times, if the physician's attention be not directed to the real cause. The spreading of erysipelas on the trunk appears to be not unfrequently influenced by the position of the patient; the tendency to spread is generally in a direction to the most depending parts—those on which the patient is resting; and rarely upwards, or to a part more elevated than the spot from which it has started. We have already alluded to the frequency of pneumonic attacks of the lower and back parts of the lungs, in patients who have been long bedridden, from whatever cause; and it is unnecessary to do more than merely again to point to diseases of the rectum, uterus, and male organs of generation in proof of the influence of position. In the treatment of ulcers of the leg, we are firmly of opinion that repose of the limb, in the horizontal posture, is by far the most important of all therapeutic means; poultices, lotions, and ointments will often all fail, unless this necessary adjunct be attended to at the same time; and even when the patient is not strictly confined, do we not invariably employ what may be termed compensating remedies, viz. strips of adhesive plaster, or rollers from the toes up the whole length of the limb; and the effect of these is well known to be, the taking off the pressure of the superincumbent column of blood from the veins of the foot and leg.

M. Gerdy, about a twelvemonth ago, instituted a number of experiments at the Hospital St. Louis, on the different methods of treating ulcers; different sets of patients were submitted to the different methods, and each method was employed by itself, in order that the results of each might be justly appreciated. Many of the details have been published in the article "Attitude," in the *Nouveau Dictionnaire de Medecine*. We shall mention a few of them.

When the limb on which an ulcer existed was kept upon an ascending inclined plane, it was found that the sore became pale, the suppuration was diminished in quantity, and a crust soon began to be formed upon the surface, and under this the healing went on more or less rapidly. If strips of adhesive plaster were used, at the same time that the elevated inclined position was retained, the cure was still more rapid: it was by combining the elevation with the use of adhesive bandages, and the entire repose of the limb, that the cicatrization of the ulcer was most speedily effected. Several cases of severe contusion were treated on the same plan, with very decided success—the contused limbs being retained in an elevated inclined position during the whole period of the treatment; the decrease of the pain, tension, and tumefaction was sometimes truly remarkable.

M. Gerdy is of opinion, that many white swellings of the joint may be very materially benefited, by an application of the principles which have directed his treatment of ulcers. He recommends that the affected limb be kept perfectly quiet and on an inclined plane, so that the foot is considerably more elevated than the thigh. He is not yet provided with the reports of any case to prove the correctness of his ideas; but in one case of elephantiasis of the leg, treated by elevation of the limb and compression at the same time, the result was most satisfactory—the subsidence of the enlargement was very striking.—*Archives Generales*.

EXPERIMENTS UPON THE SOUNDS OF THE HEART.

M. Majendie having recently drawn the attention of the Academy of Medicine to the above interesting subject, and propounded certain views of his own, which differ most essentially from those usually received, in ascribing the first sound to the shock or impulsion of the apex of the heart during its diastole against the thoracic parietes, and the second sound to the impulsion of the base of the heart during its systole, Professor Bouillaud, who has for many years distinguished himself by his zeal in the promotion of auscultatory medicine, deemed it proper to have recourse to direct experiments similar to those which Dr. Hope performed on asses.

He laid bare the heart of a strong full-sized cock, having previously satisfied himself by auscultation that its two sounds might be distinctly heard. He then listened to its action at first while enveloped in the pericardium, and then when divested of it; with the naked ear, and with the stethoscope; and not satisfied with one examination, he made several; and the result of these was, that he could always hear quite distinctly the double sound, or tic-tac of the heart, although there was no point of contact between the organ and any part of the thoracic walls. The friction indeed of the heart against the end of the stethoscope caused a particular sound; but this sound (simply one of rubbing) was so very different from the tic-tac of the organ itself, that it is almost quite impossible that they can ever be mistaken for each other. When the heart was cut out, by being separated from its attachments, it continued to beat for a few moments; but these beats of the empty organ were not accompanied with any perceptible sounds.

The preceding experiment was repeated twice upon rabbits with the same results; viz. the sounds of the heart were most distinctly heard, although neither during its diastole nor during its systole could it come in contact with the thoracic walls.

In conclusion, the Professor states that the results of his direct examination of the sounds of the heart have confirmed him in the opinion that the double bruit or tic-tac, which imitates so closely the clicks of a valve, is in fact, to be attributed to the play of the valves of the heart. *Journ. Hebdom.*

USE OF STEEL IN MENORRHAGIA.

M. Pigeaux very justly remarks that all uterine hemorrhages do not depend upon an unhealthy condition of the womb; and that not unfrequently they seem to be connected with a general cachexy of the sanguineous system as their inducing cause. This abnormal state of the blood, which in most constitutions indeed is accompanied with dysmenorrhœa, or even with a complete deficiency of the menstrual flow, gives rise at other times, under circumstances which as yet are not well understood, to profuse and very obstinate discharges from the womb. That these discharges are truly menstrual may be readily ascertained by noticing whether they ever coagulate or not; for it is very generally acknowledged that the true catamenial flux does not separate, as blood is wont to do. By attending, therefore, to this character, we shall be enabled to distinguish between menorrhagia and metorrhagia; and the distinction is of importance in a therapeutic point of view. No remedy has been found by M. Pigeaux so effectual in counteracting that sanguineous cachexy on which menorrhagia so frequently depends as steel; and the preparation which he prefers is the subcarbonate in doses at first of

from two to ten grains; and afterwards of a dram in the course of the day; when the medicine causes cardialgia, or any irritation of the bowels, he combines it with the subnitrate of bismuth, or with calcined magnesia. The steel should be continued for a month or two after the apparent cure.

The high authority of M. Recamier may be adduced in confirmation of M. Pigeaux statements.—*Revue Medicale*.

The following short observations and reflections are from the pen of Counsellor Dr. Pitschaft, of Baden, and are inserted in some of the late numbers of Hufeland's Journal of Practical Medicine:—

TREATMENT OF SCROFULA.

By far the most efficacious remedies against the various forms of scrofulous disease, are, according to the experience of our author, the artificial cinnabar (sulphuret. hydrarg. rub.) conium, cinchona, coffee prepared from acorns, and in obstinate cases, minute doses of the red precipitate of mercury, and the use of salt baths. To children of from one to two years of age, one of the following powders may be given morning and evening:—

℞. Sulphuret, hydrarg. rubri. ℥j.

Herb. cicutæ. gr. ij.

Mercur. precipit. rub. gr. j.

Sacchari alb. q. s.

M. in pulv. xx. divid.

The doses of the medicines are to be increased in proportion to the age of the patients. The use of salt baths, of acorn coffee, and of some of the preparations of Peruvian bark, promote the cure of the disease, especially when the constitutional health is impaired.

Dr. P. urges very strongly upon his readers the great importance of treating scrofula in its early stages, and on its first manifestation by his remedial plan; when the roots of the evil have struck deep, and spread themselves all round, the eradication is necessarily much more precarious. The use of the above powders must be steadily continued for two, three, or four months; and should the stomach be weak and apt to be deranged, a grain or so of the aqueous extract of aloes may be added with great advantage.

MEDICINAL PROPERTIES OF ALOES.

In minute doses it is an admirable stomachic, and seems to regulate the due secretion of the gastric juice; that it increases the flow of the bile is unquestionable.

The ancients denominated it “anima ventriculi.” Rhazes says “aloe bilem rubeam expellit;” and Aretæus, “aloe ad inferius intestinum bilem ducit.” And Ætius has very admirably explained its properties, when he writes “Aloe totum quidem corpus non purgat; bilom tamen, qui in stomacho, et ventre, et intestinis fuerit una cum duris excrementis, placide et suaviter educit.” To torpor and inactivity of the bowels, especially of the large ones, whether this arises from a deficiency of bile or not, aloes is at once a safe and very efficacious antidote. Dr. P. strongly recommends the following formula, as affording a tonic and aperient pill:—

℞. Extract. aloes aquos.

Quininæ sulphatis, aa. ℥j.

M. in pil. xx. One or two at bedtime.

In almost all cases of jaundice, especially of the chronic kind, aloes is a sovereign remedy. The following formula is recommended:—

℞. Extract. aloes liquosi, gr. vi.—x.

Extract. taraxaci, ℥ij.

Aquæ fœniculi, ℥vj.

Aquæ amygd. amar. conc. ℥j.

M. a table-spoonful every hour.

It is very serviceable in all affections of the liver.

EPISTAXIS AND HÆMOPTYSIS.

The application of cold washes to the testicles to arrest hemorrhages from the nose and chest has of late years been too much neglected.

In females the cold may be very conveniently applied to the breasts; and the most easy and effectual method is, to lay a bladder filled with pieces of ice on the *mamæ*.

In violent hæmatemesis the cold may be advantageously applied to the throat. The operation is probably exerted on the *par vagum*; and Dr. P., has with the same remedy sometimes succeeded in arresting an obstinate vomiting.

SYMPATHY BETWEEN THE CEREBELLUM AND THE GENERATIVE ORGANS

It is well known that Dr. Gall considered the cerebellum as the organ of the sexual passion. Plato says that the semen comes from the spinal marrow. In Meckel's Archives of Physiology for 1823, are detailed the particulars of the case of a two-year boy, in whom a premature development of the generative organs, and of the occipital region was contemporaneous. Beheaded and hanged criminals exhibit erections and pollutions; and Dr. Otto has communicated a most interesting account of the appearances of the generative organs in a woman who was hanged.—(Vide his Rare Observations in Anatomy.)

M. Serres has detailed some cases in which constant erections of the penis were among the symptoms present in chronic inflammation and congestion of the cerebellum; and in the 4th volume of Majendie's Journal, we are told, that if the cerebellum of some animals be exposed, and a stylet be forced into it, the penis becomes stiff and erect, and that if the stylet be pushed down the spinal canal as far as the lumbar region, seminal emissions take place.

Such are some announced physiological facts; and the consideration of them may lead us to a more successful system of therapeutics in cases of morbid excitement of the sexual functions.

Among the internal remedies which have acquired the name of anti-aphrodisiac, the least problematical is camphor. According to Fodere's experiments on the operation of various drugs, it appears that camphor acts specially on the cerebellum.—(Vide Archiv. Generales, tom. 3.) And Drs. Duncan, Perfect, and Osiander, have strongly recommended its use in that form of melancholy and mental disturbance, which not unfrequently occurs during the period when the sexual feelings are developed. A more important remedy is the application of cold to the occiput and nape of the neck. Frequent ablution with cold water is the simplest and most effectual method: occasionally, too, the local detraction of blood by leeches, or the cupping-glasses, may be of great service. Our attention ought to be directed to this treatment in cases of epilepsy accompanied with priapism and pollutions; and we should remember that it is in no way improbable that the same part of the nervous centre may be indisposed in many examples of hysteria; in this disease it is by no means uncommon for the patient to complain of an uneasy feeling in the back of the head and neck; and the phenomena of catalepsy must assuredly be somehow dependent upon an affection of the spinal marrow.

Baglivi long ago observed—

“Frequenti experientia constat, ex affectione uteri dolores verticem et occiput precipue invadere; pariter mulieres hystericis obnoxie affectibus sensum quemdam frigoris in vertice capitis habent; estque hoc precipuum hysteriæ diagnosticum.”

EXAMPLES OF SYMPATHY IN DISEASE.

A very frequent, but hitherto almost unnoticed symptom of diseased liver, is a feeling of irritation and pressure on the larynx and pharynx. Dr. Pitschaft, when he first announced this, was not aware that former writers had noticed it; he finds however in Baglivi's work, the following sentence:—“Jecore affecto dolores ad jugulum e directo fiunt.”

The etiology of this symptom is probably to be sought for in the distribution of the *par*

vagum; and in the same manner perhaps we may explain the supervention of aphonia on many occasions. How common this is when the mind is much agitated; terror, rage, and immoderate desire are well known to rob the persons of their speech.

Illi membra novus solvit formidine torpor,
Arrectæque horrore comæ, et vox faucibus hæsit.

Valerius Maximus mentions that Ægles Samius, a wrestler, who was quite dumb, when unjustly deprived of the reward of his victory, recovered his speech in the heat of indignation. It is to be kept in mind, that the liver and also the spleen, are always more or less affected after a paroxysm of mental agitation. Isodorus ingeniously remarks, “splene ridemus, felli irascimur, corde sapimus, jecore amamus;” and another author expresses the same sentiments, when he writes, “cor sapit, pulmo loquitur, fel continet iras, splen ridere facit, cogit amare jecur.”

USE OF MERCURY IN RHEUMATISM.

Dr. Burdach has lately published several cases in confirmation of the good effects of small doses of the corrosive sublimate in cases of rheumatism. For the last twenty years Dr. Pitschaft has been in the habit of employing mercury against this disease; the preparation which he prefers is the red precipitate; it is more mild, and quite as efficacious as the sublimate. He gives it in doses of from one-eighth to a fourth part of a grain twice a day; should it irritate the alimentary canal, a small quantity of opium should be combined with it. When the perios-teum is affected, the sabina will be found a useful adjunct; when the nervous system is irritable, the chenopodium may be given, and when the lymphatic system is torpid, the arnica and calamus may be given along with it. As an external application to the affected parts, Dr. P. recommends a salve prepared with caustic ammonia, or one with borax, if there should be any œdematous swelling of the limb.

TREATMENT OF EPILEPSY.

In almost all cases of epilepsy, depending upon some disturbance of the cerebral circulation, the following powders will, if persevered in for a considerable time, mitigate if not altogether cure the malady:—

℞. Cinnabar. fact.
Magist. wismuth. (qy. b.)
Herb. nicotian. aa ʒj.
Extr. aloes aquos, gr. v.
M. in pulv. xx. divid. One twice a day.

Many of the older authors had great faith in the virtues of cinnabar, and it acquired the name of magnes epilepsiæ. Dr. Pitschaft regards it as a ‘remedium divinum.’ We know that the Eastern nations very generally employ it, combined with musk in cases of hydrophobia.—*Hufeland's Journal*.

RESULTS OF DR. MOMBERT'S EXPERIENCE OF IODINE IN SCROFULA.

It appears that bronchocele and other forms of scrofula are very common in the district (Wanfried) where the doctor is settled. The town, of the same name, is situated in a valley surrounded with lofty calcareous mountains. The water which is drunk is good, although hard, in consequence of the quantity of carbonate of lime which it contains; but the general condition of the poorer classes is deplorably wretched, their habitations being damp and unwholesome, and their food and clothing scanty and miserable. Dr. M. has remarked, that strangers who come to reside in the district generally remain free from the malady, but that their children are almost quite as much exposed to it as the indigenous inhabitants. Many children are born with it; sometimes it disappears of its own accord within the twelvemonth, but it is apt to return in the second or third year. The use of the hydriodate of potass oint-

ment (a scruple to the ounce of lard) is generally sufficient to disperse the swelling in such cases, and the internal exhibition of iodine, or of its preparations, is unnecessary. Dr. M. has never in his practice had occasion to remark any injurious effects from the internal use of the tincture of iodine, in adults. Once indeed he saw the mamma of a young female very much reduced in size, while she was taking the medicine; but by discontinuing it for a time, and giving fennel tea freely, the organ regained its dimensions. In this case the iodine had caused a considerable increase in the flow of the catamenia. The burnt sponge seemed sometimes to act more beneficially than the iodine, and vice versa. It is therefore a good practice to alternate the use of the two remedies. The ung. hydriod. pot. should be used at the same time. This treatment must be cautiously watched in plethoric and irritable constitutions, as hæmoptysis is an occasional effect of it. It appears that a good many of the cases of asthma which present themselves to Dr. M.'s notice, are connected with scrofulous enlargement of some of the intra-thoracic glands; thus, in one example, he found on dissection that the trachea and even the œsophagus were compressed by a tumor which occupied the site of the thyroid gland. —*Hufeland's Journal*.

CASE OF SOMNOLENCY WHICH CONTINUED FOR FOUR MONTHS.

When Dr. Oelze, the narrator of this interesting case, first saw the patient, a girl eleven years of age, she had been asleep for about six weeks. He visited her on the 18th of May, 1826, and learned the following particulars from the attendants.

At the beginning of the year she had been attacked with measles, which were prevalent at that time in the village; the disease was mild and her recovery rapid; but in a few days, after she had been able to leave her bed, she complained much of a severe pain in the right ear; this continued for about eight days, and then subsided into the feeling of a dull ringing sound, so constant and so distressing, that the little patient had no sleep for nearly five weeks; otherwise there was no indisposition, except general weakness. Soon afterwards however violent headaches came on; and these were succeeded by colicky pains, which were always increased after eating. The pains in the abdomen ceased in the course of a fortnight, and then for eight days she was distressed with pains in all the limbs and joints of her body. On the 3d of April she fell into a state of torpor or sleep, from which no means which had been tried could rouse her, and she had continued so until the day when Dr. O. first saw her. Some days she uttered a moaning sound once or twice; but with the exception of this, she had lain without food, and as still as a corpse, till two days before Dr. O. had visited her; when, as the patient made an effort to weep, her mother had introduced a small quantity of milk into her mouth. On the following day a similar attempt at weeping was repeated, and this time she was made to swallow half a cupful of coffee. She occasionally coughed, and now and then turned herself in the bed. No urine had been passed since the commencement of the somnolency, and only once a very small quantity of hardened feces had been discharged. The skin had all along been unusually dry.

Dr. O. described her appearance as follows:—The face was pale, the body generally somewhat emaciated; the chest was well expanded, the abdomen drawn in, and the skin of every part felt exceedingly dry to the finger. The respirations were unusually short, but so gentle was each act, as to be with difficulty recognizable: they were however not uniform in this respect; for sometimes the chest appeared to heave up more considerably, although this did not seem to be the result of a deeper breathing; while at other times its motions could not be perceived. The pulsations of the heart were also very irregular in their frequency and strength: usually after each stronger beat numerous smaller ones followed; then the heart seemed to rest a while quite quiet, or only to be affected with a slight tremor: the pulse at the wrist however was tranquil and much more regular, but very small and easily compressible: it beat from 84 to 94 in the minute. The hands were kept always firmly contracted. When strong hartshorn was held to the nostrils, and applied on the upper lip, the patient sneezed and rubbed her nose with her hand. The effects of galvanism were then tried; slight shocks were sent

sometimes from the pit of the stomach to the forehead, eyelids, ears, &c. and at other times from the soles of the feet to the head, arms, and so forth. At first these shocks were evidently distressing, and caused her to draw herself, as it were, together, and to begin crying; the ears appeared to be the most sensitive parts to the galvanic irritation; for whenever one of the poles was applied to them, she endeavored to cover them with her hands, and strove to say that they were pricked and very painful. When asked if she felt pain in any part, she pointed to the neck. Dr. O. told her he wished her to take some coffee, and she permitted a spoonful or two to be poured with a spoon into her mouth; but the efforts to swallow it were evidently most painful and difficult, and it was sometime before all of it disappeared. The deglutition was easier after both sides of the neck along the track of the œsophagus were well galvanized. When the hands were galvanized, they were more contracted than before, and never became properly extended. It was remarked that no particular twitchings of any muscles were ever induced by the application of galvanism. The patient seemed to retain perfect consciousness, and to observe whatever was going on around her, although the eyes were kept always closed. When asked to look at any thing, it was easily seen that she strove to do it; but the eyelids were never more than very imperfectly separated from each other. When drawn asunder a slight resistance was felt, sufficient to indicate that a state of spasmodic contraction of the orbicularis had existed; the eyes had a staring look, and rolled slowly from one side to the other—the pupils were considerably dilated. When the patient uttered any cry, it was observed that she took long and deep inspirations without any apparent impediment or difficulty; but no sooner was she asleep than the breathing became again short and much quickened. It was curious to remark how quickly and almost instantaneously she relapsed into sleep, even after the excitement which had been produced by galvanism was so violent that she had been screaming, kicking with her feet, and beating with her hands against all attempts to repeat it. However much agitated the rest of the body was, the eyes were always kept shut.

Dr. O. having persevered in the employment of galvanism for a full hour without any satisfactory good effects, discontinued it; and concluding from the history of the case that the “*primum mobile*,” or at least one of the most prominent features of the case, was the cessation of the cutaneous secretion, directed his efforts chiefly to restoring this to its normal condition. For this purpose he ordered a mixture of infusion of valerian, camphor, and the compound sulphuric spirit.

From the 10th to the 30th of May.—It is stated that the child slept very tranquilly after the application of the galvanism until the next morning, when she seemed rather more lively, and told her mother, that the ears, chest, and abdomen in particular, had been very painful from it. From that time a cupful of milk was given, by spoonful, each day, but it had not agreed with the stomach, for indigestion, nausea, and even vomiting, had been almost always brought on after it was given. The medicine had caused nearly the same effects. Since Dr. O.’s first visit the sleep had not been so constant, nor yet so profound; for the mother had been able to obtain a few answers from her every day. At times a gentle perspiration had bedewed the surface. On the 27th of this month, for the first time since the third day of the preceding one, some urine was voided, and the patient had indicated by signs that she wished to be taken out of bed, in which two or three hardened scybalous masses were found.

Dr. O. visited her on the 30th—she was asleep, and the respirations were so gentle that he could scarcely perceive that she breathed at all. The same irregularity in the movements of the chest were noticed, as on the first report; and the actions of the heart were still as confused; but the pulse retained its former regularity, and now beat 74 in the minute. The hands were in the same contracted state, and when Dr. O. inserted his fingers between those of the patient and the palm of her hand, he found that they were so very firmly grasped, that it required a considerable effort to withdraw them. She took no notice of what was addressed to her; and even shaking her body and limbs seemed not to affect her. Ammonia held to the nostrils produced only a slight twitching of the features.

The application of galvanism was again resorted to, and similar effects were obtained from

its employment. It seemed this time that the patient remembered the annoyance which she had experienced before ; for she struggled very violently against every attempt made to repeat the operation. The transitions from agitation to sleep were now not so rapid as on the former occasion. Deglutition was quite as difficult as before ; and most of the other phenomena were unaltered.

A warm bath, in which a considerable quantity of common salt had been dissolved, was ordered for her. When put into it she attempted at first to support herself with her hands. Some frothy saliva escaped from the mouth, and she then lay still and motionless as a corpse ; the hands became more compressed, and indeed altogether the spasmodic state or tendency of the body was rather increased than diminished by the remedy ; but upon being removed from the bath and wrapped in warm blankets, a strong perspiration broke out, and this lasted for upwards of two hours. The medicines which Dr. O. prescribed at this visit were the following : a grain and a half of the flowers of zinc every night and morning, and an enema of tobacco and chamomile infusions once a day.

From 30th of May to 9th June.—The sweating, which had followed the use of the warm bath, had returned although less profusely, several times afterwards, but with no amendment of the symptoms ; indeed the stupor seemed to have increased somewhat ; for the patient had spoken scarcely a word, and not a mouthful of nourishment had been taken. Only two injections had been given, and these had never returned ; it was therefore deemed unsafe to repeat them. A sort of general spasm, or convulsive fit (of a truly opisthotonic character), had taken place almost every day, and this was always preceded and announced by the patient's screaming. The spine and head were violently bent backwards, and the limbs rigidly extended. This state continued for three, four, or five minutes, and then the spasm abated, and the joints became more flexible. A small quantity of urine was voided on the 8th of June.

The next day Dr. O. saw her, and found her very nearly in the same condition as at his former two visits. The breathing and circulation were unaltered ; the *alæ nasi* were observed to dilate and close more powerfully, and the eyelids frequently to be affected with tremulous movements. The galvanism was repeated, as far as the patient's struggles permitted its employment : it had the effect however of forcing her to answer all questions more readily and distinctly. Soon afterwards several paroxysms of spasm came on, at intervals of from eight to twelve minutes. One grain of calomel with one of the red sulphuret of antimony and three of sulphur, were ordered to be given morning and evening, and an enema composed of valerian, tobacco, and chamomile infusions.

On the 16th it was found that the attacks of cramp had been less frequent on the whole, although there were generally still four or six daily. The patient had drunk a little milk now and then, but she had not spoken at all ; and only once was any urine discharged. The pulse beat from 75 to 80 ; the other phenomena unchanged. The effects of opium were now tried ; fifteen drops of laudanum were given, and repeated every hour for three times. When the second dose was given she became more lively, and began to scream out ; thereupon a paroxysm of opisthotonos came on, and lasted for several minutes. A warm bran bath was ordered, and the same injurious effects followed as after the use of the water bath. The powders prescribed at the former visit were continued.

July 4th.—Very little change in any of the symptoms ; once only there had been a discharge of urine, and of feculent scybala ; and of late the paroxysms of cramp had become more frequent ; some days they recurred almost every hour, and their duration also was longer than before. The calomel, &c. powders had been given as often as possible ; for frequently not a grain or drop of any thing could be got down ; and it was only to be effected when the mouth was opened during the crying which preceded the paroxysm. At other times it was kept firmly closed. Numerous clysters had been given, and every one of them retained. The surface of the body was almost always cold, although the temperature of the air was at this time very high.

About a week after this date the child began to be less drowsy, and to notice more and more

whatever was going on in the room where she was. It was quite apparent that she understood the conversation of those who were talking to her mother; and on one occasion, she intimated that she wished her chest to be rubbed again with a hartshorn liniment, which she had observed to have been put aside in a cupboard. She took more willingly small quantities of milk and of coffee; but both of these drinks were generally vomited soon after being swallowed; this irritability of the stomach had existed from the commencement of her malady. Urine had been voided once, in the last ten days.

25th July.—There had been some abatement of the somnolency since last report, and the attacks of cramp had been less frequent and severe. She had taken more nourishment, although vomiting still occasionally followed the effort of swallowing. The sensibility and consciousness were also more distinct; but though observant of what was done or said in her presence, she had not of late spoke at all, and had answered questions put to her only by winks and nods.

The urine had been discharged three times, and the bowels relieved twice.

The action of the heart was less irregular than hitherto, and the movements of the chest were more uniform; the eyelids were more readily separable, and frequently agitated with a tremulous motion; the pupils were now natural. When Dr. O. visited her she was in a profound sleep, which was not in the least disturbed by shaking her violently from side to side.

The powders and infriktion on the spine were ordered to be continued.

From this date the somnolency became very much less, and the tetanic convulsions almost quite ceased.

It had been observed that the degree of the former had been always proportionate to the violence of the latter; and now both symptoms abated simultaneously. The appetite gradually returned, although the stomach continued to reject part of the food; the bowels and urinary bladder relieved themselves daily. The eyes were observed to be very sensitive to the impression of light.

By the middle of August she had recovered so far that she remained lively during the whole of the day. When she attempted to walk, her gait was awkward and tottering; the spine appeared to be exceedingly weak, and, upon any exertion, the breathing became oppressed and the circulation much hurried. The speech, however, was still almost quite deficient, and when she was asked the reason of it, she pointed to her chest where, it seemed, she felt much embarrassment and distress. However, in the course of another fortnight, it was greatly restored, and from this date the patient was pronounced to be quite well. The child, it appears, had no remembrance of her illness, and of what had been done to her during its continuance.

Reflections.—The somnolency, in the preceding case, seems to have been induced by the mismanagement of an attack of measles, especially during the eruptive stage. The early symptoms were those of pain, and feeling of noises in the right ear: as these subsided, severe headaches, then pains in the abdomen and limbs, set in, and, lastly, the somnolency and tetanic spasms succeeded. This succession of symptoms seems to indicate the operation of a rheumatic-gouty diathesis as the cause of the malady.

The physiology of such a case is certainly obscure:—As noticed before, the co-existence and co-abatement of the drowsiness and convulsions were probably owing to the same morbid state; but what the nature of that state was, it is not easy to determine; perhaps some peculiar pressure on the nervous centres. It is not a little singular, that the organic functions can be maintained for such a length of time, without any fresh supply of nutriment, as they were in the present case. For six entire weeks, not one mouthful of food was swallowed; and, for the next five or six, only from a half to one small cupful of milk and coffee in the course of the day; and half of these quantities was generally rejected by vomiting.

The respiratory function was, indeed, imperfectly performed, and the circulation was more or less disturbed—so also were the secretions. But yet the emaciation which took place was by no means very striking, and nothing like what might have been anticipated from so length-

ened an abstinence. A feature of the case worthy of notice is, that the arterial pulse was steadily regular, although the actions of the heart were almost always irregular and confused. This would seem to indicate that in some convulsive diseases the actions of the heart and arteries are independent of each other to a certain extent. As to the therapeutic deductions, Dr. O. is inclined to attribute most of the benefit from the medicines employed, to the mercurial preparations; and, of these, the most efficient seemed to be the calomel.

The venerable Hufeland has appended a remark or two of his own to the preceding report of Dr. O. He alludes to the metastatic origin of the somnolency and cramps, and conjectures that a certain degree of cerebral effusion had existed during the greater part of the existence of the malady. He attributes the recovery of the patient to the agency of the mercury having excited the action of the absorbents. He approves of repeated blisters, applied to the nape of the neck.—*Journ. der pract. Heilk.*

DIGITALIS IN DROPSY.

M. Chrestien states that he has cured a great number of dropsies, consequent on abdominal phlegmasia or intermittent fevers, by the use of the tincture of digitalis in frictions on the abdomen, or inner part of the thighs; half an ounce three or four times a-day. His formula for the tincture is as follows:—take an ounce of the digitalis purpurea, and three ounces of alcohol, and let it macerate. M. Chrestien considers that digitalis is a general excitant, and has besides, specific powers, which cause an abnormal secretion of urine, and diminishes the frequency of the heart's action. If this latter effect does not take place, it is owing to an irritable condition of the alimentary canal.—*Revue Medicale.*

CAMPHOR OBTAINED FROM PARSLEY.

If fresh oil of parsley be placed in contact with water, it will be changed into camphor in the course of a few days. This product can be separated from the water by filtration, and dried on bibulous paper; dissolved in alcohol, it crystallises in prisms and needles; it dissolves at $+30^{\circ}$, and it requires a much lower temperature to become solid again; at $+21^{\circ}$ it enters into ebullition; at $+390^{\circ}$ it assumes a brown color, but does not sublime. Its composition is six atoms of carbon, seven of hydrogen, and two of oxygen.—*Journal de Pharmacie.*

CIVIALE.

The King of Sweden has presented this celebrated lithotritist with the cross of the Polar Star, the highest mark of honor ever conferred on a savant in that country, and it may be regarded as a proof of the success of lithotrity in Sweden.—*Gazette des Hopitaux*

SUTURE OF THE PERINÆUM.

Dr. Mineogliano having read that M. Roux had cured several cases of ruptured perinæum, consequent on parturition, resolved to follow his example, with this exception, that he used the hare-lip pins, instead of the sutures recommended by Roux. The case fell under his care the second day after the rupture; the pins were kept in ten days; the operation was successful. The patient afterwards became pregnant, and was delivered without injuring the cicatrix.—*Op. Med.*

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